### **SERVICE MANUAL**

### **BE-3D** chassis

| MODEL     | COMMANDER | DEST.   | CHASSIS NO. | MODEL     | COMMANDER       | DEST. | CHASSIS NO. |
|-----------|-----------|---------|-------------|-----------|-----------------|-------|-------------|
| KV-28WS2B | RM-862    | French  | SCC-K01M-A  | KV-28WS2k | / RM-862        | OIRT  | SCC-K08V-A  |
| KV-28WS2D | RM-862    | AEP     | SCC-K07N-A  | KV-28WS2F | RM-862          | OIRT  | SCC-K20A-A  |
| KV-28WS2E | RM-862    | Spanish | SCC-K06M-A  | KV-28WS2U | <b>)</b> RM-862 | UK    | SCC-K04H-A  |





| ITEM MODEL | Television System | Channel Coverage   | Colour System                                     |
|------------|-------------------|--|---|
| French     | B/G/H, D/K, L, I  | L SECAM VHF: F2-F10 UHF: F21-F69 TV CABLE TV (1) VHF: B-Q UHF: S21-S44 PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 PAL I UHF: B21-B69 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05 | PAL, SECAM<br>NTSC3.58/4.43<br>(video input only) |
| AEP        | B/G/H, D/K        | B/G/H VHF: E2-E12 UHF: S1-S20<br>CABLE TV (1): S1-S41<br>CABLE TV (2): S01-S05, M1-M10, U1-U10<br>ITALIA VHF: A-H, H1, H2<br>D/K VHF: R01-R12 UHF: R21-R69<br>CABLE TV VHF: S1-S41, UHF: S01-S05   | PAL, SECAM<br>NTSC3.58/4.43<br>(video input only) |
| Spanish    | B/G/H, D/K        | PAL B/G/H VHF: E2-E12 UHF: E21-E69 CABLE TV (1): S1-S41 CABLE TV (2): S01-S05, M1-M10, U1-U10 ITALIA VHF: A-H, H1, H2 D/K VHF: R01-R12 UHF: R21-R69 CABLE TV VHF: S1-S41, UHF: S01-S05   | PAL, SECAM<br>NTSC3.58/4.43<br>(video input only) |
| OIRT       | B/G/H, D/K        | B/G/H VHF: E2-E12 UHF: E21-E69<br>CABLE TV (1): S1-S41<br>CABLE TV (2): S01-S05, M1-M10, U1-U10<br>ITALIA VHF: A-H, H1, H2<br>D/K VHF: R01-R12 UHF: R21-R69<br>CABLE TV VHF: S1-S41, UHF: S01-S05  | PAL, SECAM<br>NTSC3.58/4.43<br>(video input only) |
| UK         | ı                 | UHF: U21-U69   | PAL<br>NTSC3.58/4.43<br>(video input only)        |

| MODEL             | 28WS2B | 28WS2D | 28WS2E | 28WS2K<br>28WS2R | 28WS2U |
|-------------------|--------|--------|--------|------------------|--------|
| Power Consumption | 112W   | 112W   | 112W   | 112W             | 185W   |

### **SPECIFICATIONS**

Picture Tube **Super Trinitron WIDE** 

Approx. 71 cm (28 inches) (Approx. 66 cm picture measured

diagonally) 110° -deflection

### **Rear/Front Terminals**

### [REAR]

1 21-pin Euro connector (CENELEC standard)

Inputs for audio and video signals

Inputs for RGB

Outputs for TV audio and video signals

→ 2/→ 2, 21-pin Euro connector (CENELEC standard)

Inputs for audio and video signals

Inputs for S video

Outputs for TV audio and video signals (selectable)

- audio outputs - phono jacks Left/Right Speaker Terminals Surround Speaker Terminals

→ 3, Audio inputs - phono jacks -S 3, S video input - 4 pin DIN Stereo minijack - headphone jack  $\Omega$ 

3, Video input - phono jack

Sound output

Left/Right 2x10W (RMS) 2x20W (music power) 2x2.5W (RMS) Centre 2x5W (music power) Surround 2x5W (RMS) 2x10W (music power) **Dimensions** 798x497x531 mm approx. Weight Approx. 43.0 kg (with speakers)

Supplied accessories

RM-862 Remote Commander (1)

Batteries R6 (2) Surround Speakers (2) Surround Speakers Leads (2)

Other features

Fastext, Dolby Pro Logic

NICAM (KV-28WS2B,28WS2E,28WS2K,28WS2R and 28WSU only)

[RM-862]

Power requirements 3V dc (2 batteries) R6 (size AA)
Dimensions Approx. 210x56x24 mm (w/h/d)
Weight Approx. 110g (Not including battery)

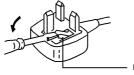
### Design and specifications are subject to change without notice.

| Model name       | KV-28WS2B | KV-28WS2D | KV-28WS2E | KV-28WS2K<br>KV-28WS2R | KV-28WS2U |
|------------------|-----------|-----------|-----------|------------------------|-----------|
| PIP              | OFF       | OFF       | OFF       | OFF                    | OFF       |
| MPIP             | OFF       | OFF       | OFF       | OFF                    | OFF       |
| Rotation Coil    | ON        | ON        | ON        | ON                     | ON        |
| VM Set           | ON        | ON        | ON        | ON                     | ON        |
| Scart 1          | ON        | ON        | ON        | ON                     | ON        |
| Scart 2          | ON        | ON        | ON        | ON                     | ON        |
| Front in (3)     | ON        | ON        | ON        | ON                     | ON        |
| AKB in 16:9 mode | ON        | ON        | ON        | ON                     | ON        |
| TXT              | ON        | ON        | ON        | ON                     | ON        |
| FLOF             | ON        | ON        | ON        | ON                     | ON        |
| TOP              | ON        | ON        | ON        | ON                     | ON        |
| Norm B/G/H       | ON        | ON        | ON        | ON                     | OFF       |
| Norm I           | ON        | OFF       | OFF       | OFF                    | ON        |
| Norm D/K         | ON        | ON        | ON        | ON                     | OFF       |
| Norm L           | ON        | OFF       | OFF       | OFF                    | OFF       |
| Language Preset  | French    | German    | Spanish   | OIRT                   | English   |

### WARNING (KV-28WS2U only)

The flexible mains lead is supplied connected to a B.S. 1363 fused plug having a fuse of 5 AMP capacity. Should the fuse need to be replaced, use a 5 AMP FUSE approved by ASTA to BS 1362, ie one that carries the ASTA to BS 1362.

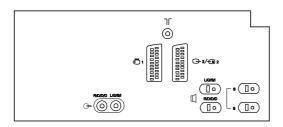
IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR YOUR SOCKET OUTLETS IN YOUR HOME. IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET OUTLET. When an alternative type of plug is used it should be fitted with a 5 AMP FUSE, otherwise the circuit should be protected by a 5 AMP FUSE at the distribution board.

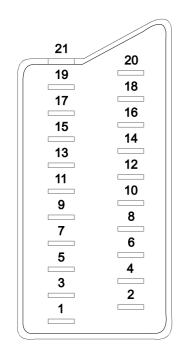


How to replace the fuse. Open the fuse compartment with the screwdriver blade and replace the fuse.

FUSE

### 21 pin connector ( → 1, → 2/ → 2)





| Pin No. | 1 | 2 | 4 | Signal                          | Signal Level  |
|---------|---|---|---|---------------------------------|---|
| 1       | 0 | 0 | 0 | Audio output B<br>(Right)       | Standard level : 0.5V rms Output impedance : Less than 1k ohms*   |
| 2       | 0 | 0 | 0 | Audio input B<br>(Right)        | Standard level : 0.5V rms Output impedance : More than 10k ohms*  |
| 3       | 0 | 0 | 0 | Audio output A<br>(Left)        | Standard level : 0.5V rms Output impedance : Less than 1k ohm*  |
| 4       | 0 | 0 | 0 | Ground (Audio)                  |   |
| 5       | 0 | 0 | 0 | Ground (Blue)                   |   |
| 6       | 0 | 0 | 0 | Audio input A<br>(Left)         | Standard level : 0.5V rms<br>Output impedance : Less than 10k ohm*  |
| 7       | 0 | • | • | Blue input                      | $0.7 \pm 3 \text{dB}$ , 75 ohms, positive   |
| 8       | 0 | 0 | 0 | Function select<br>(AV control) | High state (9.5 - 12V) : Part mode<br>Low state (0 - 2V) : TV mode<br>Input impedance : More10k ohms<br>Input capacitance : Less than 2nF |
| 9       | 0 | 0 | 0 | Ground (Green)                  |   |
| 10      | 0 | 0 | 0 | Open                            |   |
| 11      | 0 | • | • | Green                           |   |
| 12      | 0 | 0 | 0 | Open                            |   |
| 13      | 0 | 0 | 0 | Ground (Red)                    |   |
| 14      | 0 | 0 | 0 | Ground (Blanking)               |   |
| 4-      | 0 | _ |   | Red input                       | $0.7 \pm 3 \text{dB}$ , 75 ohms, positive   |
| 15      | _ | 0 | 0 | (S signal)<br>croma input       | 0.7 ± 3dB, 75 ohms, positive  |
| 16      | 0 | • | • | Blanking input<br>(Ys signal)   | High state (1 - 3V) Low state (0 - 0.4V) Input impedance : 75 ohms  |
| 17      | 0 | 0 | 0 | Ground<br>(Video output)        |   |
| 18      | 0 | 0 | 0 | Ground<br>(Video input)         |   |
| 19      | 0 | 0 | 0 | Video output                    | 1V ± 3dB, 75ohms,<br>positive sync : 0.3V (-3 + 10dB)   |
| 20      | 0 | _ | _ | Video input                     | 1V ± 3dB, 75ohms,<br>positive sync : 0.3V (-3 + 10dB)   |
| 20      | _ | 0 | 0 | Video input<br>Y (S signal)     | 1V ± 3dB, 75ohms,<br>positive sync : 0.3V (-3 + 10dB)   |
| 21      | 0 | 0 | 0 | Common ground (plug, sheild)    |   |

○ Connected ● Not Connected (Open) \* at 20Hz - 20kHz

| Pin No. | Signal             | Signal Level                                   |
|---------|--------------------|--|
| 1       | Ground             |  |
| 2       | Ground             |  |
| 3       | Y (S signal) input | 1V ± 3dB 75 ohm, positive Sync. 0.3V -3 + 10dB |
| 4       | C (S signal) input | 0.3V ± 3dB 75ohm, positive Sync.               |



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|     |              |   |             |     |        |  |             |

### CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

### WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.

THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY SHADING AND MARK \(\hat{L}\) ON THE
SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND, IN THE PARTS
LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE
COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS
APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS
PUBLISHED BY SONY.

### **ATTENTION**

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

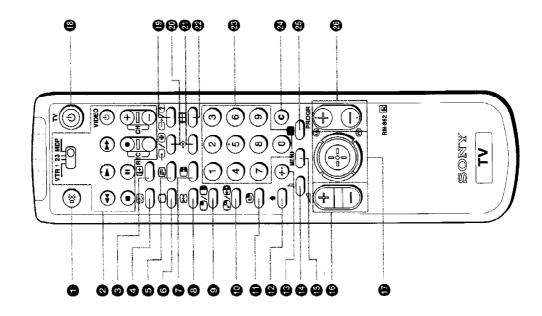
### ATTENTION !!

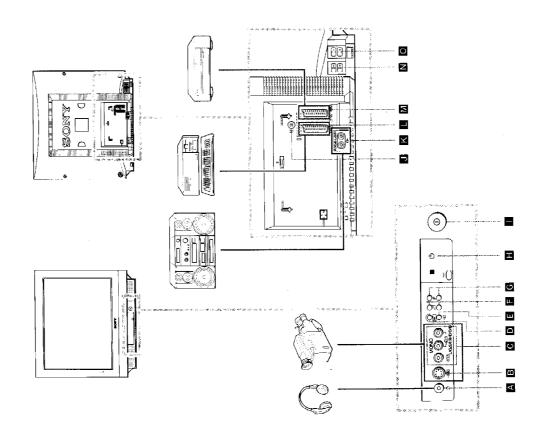
AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

### ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE 

SUR LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY.





### Overview

### Overview

Remote Commander Operation

This section briefly describes the controls and the buttons on the TV set and on the Remote Commander. Please open the flap at the front of the Instruction manual for illustrations of the TV set and the Remote Commander. Letters in boxes refer to the buttons on the TV set, numbers in circles to the buttons on the Remote Commander. For more information, refer to the page numbers given next to each description.

### TV-Buttons and Terminals

| lefe      | Reference and Symbol | Name                         | Refer to Page |
|-----------|----------------------|------------------------------|---------------|
| [ E       | Front of the set     |                              |               |
| ⋖         | C                    | Headphones jack              | 33            |
| <u> </u>  | <del>-</del> €93     | S video input jack           | 33            |
| 0         | ⊖3, ⊖3               | Audio/video input jacks      | 33            |
|           | 1                    | Automatic Preset button      | 12            |
| Ш         | <del></del>          | Input mode button            | 14            |
| ш         | <u>_</u> +           | Volume control               | 13            |
| IJ        | P+/-                 | Programme button             | 13            |
| <b>53</b> | Ð                    | Standby mode indicator       | 13            |
|           | Θ                    | Main power switch            | 13            |
| ear       | Rear of the set      |                              |               |
|           | 1                    | Aerial socket                |               |
| ×         | <b>.</b>             | Audio phono jacks            | 33            |
|           | - Q 1                | 21 pin Euro connector        | 33            |
|           | G-2/-602             | 21 pin Euro connector        | 33            |
| Z         | L/G/S/I,R/D/D/D      | Left/Right speaker terminals | 10            |
| 0         | S                    | Surround speaker terminals   | 10            |

| VTR123MDP  VTR123MDP   VIDEO Ĉ, CH +/.   ©  ©  ©  ©  ©  ©  ©  ©  ©  ©  ©  ©  © | 3MDP            | Muting on / off button   | 13       |
|--|-----------------|--|----------|
|  | змор            |  |          |
|  | 3MDP            | VCR operation  | 36       |
|  |                 | Video equipment selector   | 36       |
|  | •== *           | Video equipment operation buttons  | 36       |
|  | VIDEO ©, CH +/- |  |          |
|  |                 | On-screen display button   | 13       |
|  |                 | Time display button  | 13       |
|  |                 | Teletext button  | 14       |
|  |                 | TV power on/TV mode button   | 13, 14   |
| 800000   | •               | No function on this set  | •        |
| /-   |                 | Double digit entering button   | 13       |
| ^,<br><b>e</b>   |                 | Sound mode button  | 20       |
| <b>⊕</b> MENU  |                 | Menu on/off button   | 15       |
| <b>⊕</b> ∠+/-  |                 | Volume control button  | 13       |
| <b>(1)</b>   |                 | Joystick for menu selection.<br>Press to confirm selection (OK function) | 51       |
| ₽ALL 4   |                 | TV standby button  | 13       |
| ^<br>•   |                 | No function on this set<br>Teletext: reveal button                       | ' ह      |
| (a) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c                                 |                 | Input mode button<br>Teletext: Freezing the subpage                      | 14<br>31 |
| ♦  |                 | Teletext: Favourite pages button   | 32       |
| #<br>8   |                 | Button to change screen format   | 14       |
| <b>1</b> , 2,  | 0,0             | Number buttons   | 13       |
| ၁<br><b>@</b>  |                 | Direct channel button  | 14       |
| •  |                 | Picture mode button  | 20       |
| ® PROGR +/-<br>(►) (▼)   | r+/-            | Programme buttons<br>Teletext: Page up/page down buttons                 | 13       |

∞

### **Getting Started**

### Step 1

## Connecting the Speakers

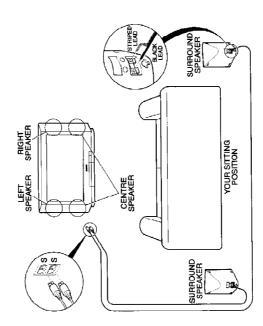
Dolby (\*) Pro Logic Surround normally requires 5 speakers: Do not switch on the TV before you connect the speakers.

- for anchoring the stable sound image, like dialogue, to the TV screen Centre speaker (incorporated in the TV set)

Left and Right front speakers (incorporated in the TV set) - for the normal two channel stereo or bilingual broadcasts

Surround speakers

for the special effects created by the surround channel



- Connect the speakers using the leads provided. The striped lead (+) is for the red terminal of the speaker and the black lead (-) is for the black terminal.
- $\bullet$  If you use your own speakers, make sure they are at least  $8\Omega$  impedance and are magnetically shielded. Otherwise picture distortion may occur.

(\*) Manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY, the double-D symbol III and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.

### Step 2

### (If you connect a VCR, skip to step 3) Connecting the Aerial

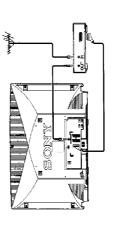
Insert the aerial plug tightly into the aerial socket T J. Use a good-quality aerial cable (not supplied), corresponding to the relevant regulations.

### Step 3

### **Connecting a VCR**

We recommend that you tune in the VCR signal to programme number "0". For details, see "Presetting Channels Manually" on page 17.

See "Connecting Optional Equipment" on page 33 for more information.



### Step 4

### Inserting the Batteries Into the **Remote Commander**



Respect your environment! Dispose of used batteries in an environmentally friendly way.

### Step 5

# Presetting Channels Automatically

With this function, the TV can automatically search and store up to 100 different channel numbers.

If you prefer manual presetting, refer to "Presetting Channels Manually" on page 17.

Plug into mains.

Press the power switch ① ■ on the TV set.

Press and hold the button 💌 ■ on the TV set until the automatic

menu is displayed and the search starts.
After all available channels are stored, the normal TV picture is shown.

Note: Channels are automatically stored as follows:

Cuannets are automatically stored as for Programme 1 BBC1
Programme 2 BBC2
Programme 3 ITV
Programme 4 CH4 or S4C

### TV Operation

### TV Operation

This section explains functions used whilst watching TV. Most operations are carried out using the remote commander (numbers in circles). All basic functions are also available on the TV set (letters in boxes). Open the flap at the front of the Instruction Manual to see the illustrations of the Remote Commander and the TV set.

| То   | Press   |
|--|---|
| Switch on  | ① 🖪 on TV   |
| Switch off temporarily                                       | ひ <b>®</b><br>TV is now in standby mode and ⇔ <b>日</b><br>indicator on TV lights up.  |
| Switch on from standby mode                                  | ○ 6, PROGR +/-  |
| Switch off completely  | ① <b>II</b> on TV<br>To save energy, switch off your TV<br>completely when TV is not in use.  |
| Select programmes  | PROGR +/- <b>® ©</b> or number buttons <b>®</b> For double digit number, press -/ <b>®</b> then the number e.g. For 23, press -/ <b>®</b> then 2 and 3. |
| Display on screen indications                                | (i-) ②. Press again to make the indications disappear.  |
| Adjust the volume  | ∠ + or - <b>(b F</b>  |
| Mute the sound   | a% <b>(1)</b> . Press again to restore the sound.   |
| Display the time (only available when teletext is broadcast) | <ul><li>② ②. Press again to make the display<br/>disappear.</li></ul>   |
|  |   |

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| 2   | Press  |
|---|--|
| Tune in a channel<br>temporarily                                      | C ②. The indication "C" appears. Enter the double digit number. e.g. For 4, press 0 then 4.                                    |
| View video input picture<br>(see page 34 for detailed<br>information) | $\odot$ @ $\blacksquare$ repeatedly until the desired video input appears. Press $\bigcirc$ $\odot$ to restore the TV picture. |
| Operate Screen Mode<br>(see page 19 for<br>detailed information)      | #3 @ 4:3 —> Smart —> Zoom —> Wide When using zoom mode, select 'scroll' to see the cut-off part of the screen.                 |
| View teletext (see<br>page 31 for detailed<br>information)            |  |
| Switch on   | 9 🗐  |
| Select a page   | three number buttons <b>②</b> or <b>② ③</b> (for next page) or <b>③ ③</b> (for previous page).                                 |
| Use fastext   | Push joystick <b>(b)</b> to select a colour.   |
| Switch off  | 90   |

### Advanced Operations

### Adjusting and Setting the TV Using the Menu

You can adjust and set various functions on the TV using the following remote commander buttons:

- Press MENU (B) to switch menu on/off.
   Use the joystick (P) as follows.

GREEN: scroll up

RED : decrease/backward

YELLOW: increase/forward

Pressing the joystick at its neutral position : confirm BLUE: scroll down

## **Choosing the Menu Language**

This function enables you to change the language of the menu screens.

Press power switch  $\oplus$   $\blacksquare$  on the TV. If the standby indicator  $\dot{\oplus}$   $\blacksquare$  on the TV is lit, press  $\bigcirc$   $\textcircled{\Theta}$  or a number button  $\textcircled{\Theta}$  on the Remote Commander.

2 Press the MENU button © on the remote commander.

English
Coursed Prançais
Français
Especial
Noderlai
Ovenska
Ovenska

- 3 Push to blue or green to select the language you want then push to yellow.
- 4 Press the MENU button (6 to restore the normal TV picture.

# **Presetting Channels Automatically**

You may have already preset the channels automatically by using the method shown on page 12. You can also preset channels automatically by using the remote commander as follows:

Press the MENU button .

₽ 0 ▤ • to select the symbol E on the menu Push joystick (1) to blue or green screen then push to yellow.

10 

Push to blue or green to select 'Auto Programme'

preset, the normal TV picture is shown. After all available channels have been 4 Push to yellow and hold until the automatic menu is displayed and the search starts.

LABEL CHAN C26 SYS -

Note: Channels are automatically stored as follows:

BBC2 Programme 2 Programme 3 Programme 1

CH4 or S4C

Programme 4

## Presetting Channels Manually

numbers. This is also convenient for allocating programme numbers to various video This function enables you to preset channels one by one to different programme input sources.

Press the MENU button .

to select the symbol 🖹 on the menu 2 Push joystick (10 to blue or green screen then push to yellow.

| · 通常表示。             |                |                 |                           | ^<br>: _                                  |  |
|---------------------|----------------|-----------------|---------------------------|---|--|
| 日本の教養の 中のの あない かっこう | Auto Programme | AV Label Preset | Parental Lock<br>Language | Dolby Pro Logic Setup<br>Pictura Rotation |  |
|                     |                |                 |                           |   |  |
|                     | 1              | Φ               | อ                         | €   |  |
|                     |                |                 |                           |   |  |

'Manual Programme' then push to 3 Push to blue or green to select yellow

| Ā     | 중 | 용 | 8 | Š    | 8 | 8   | 중 | 중 | 8   | 8      |   |
|-------|---|---|---|------|---|-----|---|---|-----|--------|---|
| LABEL | ; | : | ; | :    | : | :   | : | : | ;   | }      |   |
| CHAN  | 8 | ទ | ë | ပ္ပိ | 8 | 3   | 2 | 4 | 650 | C25    |   |
| SYS   | - | - | - | -    | - | -   | - | - | -   | -      |   |
| PROG  | 0 | - | N | ø    | 4 | ur) | 9 | ۷ | æ   | ch (th | ١ |
| α.    |   |   |   |      |   |     |   |   |     |        | ļ |
|       |   |   |   |      |   |     |   | - |     |        | • |
|       |   |   |   |      |   |     |   |   |     |        |   |

4 Push to blue or green to select on which programme number you want to preset a channel then push to yellow.

**5** Push to blue or green to select the TV broadcast system 'I' or a video input source (AV1, AV2,...) then push to yellow twice. 6 Select the first number digit of 'CHAN' (channel) then the second number digit of 'CHAN' with the number buttons 

on the remote commander

Push joystick **(b)** to blue or green to search for the next available channel.

using the number buttons @ on the remote commander or push to blue or green If you want to store the channel, go to step 8. If not, select a new channel to resume the search.

### 18 | Advanced Operations

## Adjusting the Picture and Sound (continued)

### PICTURE CONTROL

Picture Mode

•User —> Game —> Movie —> Sports —> Live

Sharpness and Hue (NTSC signals only) as follows: In 'User' mode, you can preset Brightness, Colour,

1 Push joystick (7) to blue or green to select the desired item then push to yellow.

2 Push to red or yellow to adjust then press the

3 Push to red to return to the PICTURE CONTROL menu joystick 😭

 Resets picture to the factory preset levels. -Brighter • Darker —— |—

• All the picture levels automatically change according to the surrounding lighting level. (Auto Picture Control)

Auto Picture

Format

Contrast

Format (4:3 -> Smart --> Zoom --> Wide), Scroll or There are three options.

Auto 16:9

To preset these, follow the procedure below.

1 Push joystick (1) to blue or green to select the desired item then push to yellow 2 Push to red or yellow to change the setting then press the joystick ...

3 Push to red to return to the PICTURE CONTROL menu. Format/Scroll

Once 'Zoom' has been selected in 'Format' mode, you can then choose the 'Scroll' function to scroll the screen upwards or downwards to see the cut-off part (e.g. after selecting 'Zoom' and returning to the normal picture, push joystick (1) to blue or green to scroll then press

joystick .

Automatically selects 16:9 picture mode when receiving a 16:9 broadcast (set to 'Off' if signal reception is weak).

# Adjusting the Picture and Sound

Press the MENU button **@** to restore the normal TV picture.

Repeat steps 4 to 8 to preset other channels.

Press the joystick 4.

Although the picture and sound are adjusted at the factory, you can adjust them to suit your own taste.

Press the MENU button .

Push joystick **(P)** to

blue or green to select III for picture control or ♪ for sound

control then push to

yellow.

Esound Mode

Sound Mode

Barror

Bear Extensi

Simpural Mo

On Volume Offer

On Dubal Sound

Antic Surroun 

Push to blue or green to select the desired item then push to yellow.

Push to red or yellow to alter the item then press the joystick ( For the effect of each control, see the following tables.

Repeat steps 3 and 4 to adjust the other items.

Press the MENU button ( to restore the normal TV picture.

## Adjusting the Picture and Sound (continued)

### SOUND CONTROL

Sound Mode

In 'User' mode, you can preset Treble and Bass as follows. 1 Push joystick (1) to blue or green to select the item then User —> Rock —> Jazz —> Pop

2 Push to red or yellow to adjust then press the push to yellow. joystick 🗑

3 Push to red to return to the 'SOUND CONTROL' menu.

• Left —— | —— Right

 Resets sound to the factory preset levels. Boosts bass by a fixed amount.

-> Theatre--> Hall --> Church --> Stadium --> Off Pro Logic -> Pseudo Stereo -> Spatial -> Club Choice among special sound effects.

Surround Mode

Bass Extension

Balance Reset • A: Left channel -> B: Right channel -> stereo -> mono Presets the volume level for inclividual programmes.

Adjusts the headphone volume.

Volume Offset

Dual Sound

A: Left channel --> B: Right channel --> stereo --> mono Automatically selects Pro Logic Surround sound when Selects the headphone channels.

transmitted. (set to 'Off' if signal is weak).

Auto Surround

C Dual Sound

? Volume

**Changing Modes Quickly** 

You can quickly change the Surround Mode or the Picture Mode without entering the SOUND CONTROL or the 'PICTURE CONTROL' menu.

1 Press 

② for the picture or 

③ to the sound.

2 Push joystick (1) to blue or green to select the desired mode.

Press ■ @ or ୬ again to restore the normal TV screen.

### **Manual Fine-Tuning**

If the picture is distorted however, you can manually fine-tune the TV to obtain a Normally, the automatic fine-tuning (AFT) function is operating. better picture reception.

7 Press the MENU button .

 ${f Z}$  Push joystick  ${f \Theta}$  to blue or green to select the symbol  ${f \Xi}$  on the menu screen then push to yellow.

**3** Push to blue or green to select 'Manual Programme' then push to yellow.



4 Push to blue or green to select the programme number which corresponds to the channel you want to manually fine-tune.

 ${f 5}$  Push to yellow repeatedly until the AFT position changes colour.

 $oldsymbol{6}$  Push to blue or green to fine tune the channel frequency (-15 to +15).

7 Press the joystick •

8 Repeat steps 4 to 7 to fine-tune other channels.

9 Press the MENU button © to restore the normal TV picture.

## **Sorting Programme Positions**

This function enables you to exchange the programme positions.

Press the MENU button (6).

∠ Push joystick 

⊕ to blue or green to select the symbol 

⊕ on the menu screen then push to yellow.

Programme Sorting' then push 3 Push to blue or green to select to yellow.



the channel you want to exchange 4 Push to blue or green to select then push to yellow.

| ·                                     |   |
|---------------------------------------|---|
| 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | LABEL<br>BIBC-W<br>VHS-2<br>CNN<br>NNV-CH<br>VHS-1<br>VHS-1   |
|                                       | CHAN<br>C228<br>C38<br>C38<br>C40<br>C40<br>C58<br>C56<br>C56<br>C56<br>C56<br>C56<br>C56<br>C56<br>C56<br>C56<br>C56 |
|                                       | ×   |
|                                       | \$0-00000000000000000000000000000000000   |

 $oldsymbol{5}$  Push to blue or green to select the programme position of the channel you want exchanged then push to yellow.

Repeat steps 4 to 5 if you wish to exchange other programme positions.

7 Press the MENU button **@** to restore the normal TV picture.

### **Using Parental Lock**

This function enables you to prevent undesirable broadcasts from appearing on the screen. We suggest you use this function to prevent children from watching programmes which you consider unsuitable.

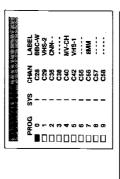
1 Press the MENU button 6.

 ${f 2}$  Push joystick  ${f \Phi}$  to blue or green to select the symbol  ${f \Xi}$  on the menu screen then push to yellow.

3 Push to blue or green to select Parental Lock' then push to yellow.



the programme number to indicate that this channel is now blocked. the channel you want to block 4 Push to blue or green to select A symbol appears before then push to yellow.



5 Repeat step 4 if you wish to block other channels.

6 Press the MENU button 6 to restore the normal TV picture.

Note: To unblock, push to yellow after selecting the channel to unblock in the 'Parental Lock' menu.

### **Using the Sleep Timer**

This function enables you to select a time period after which the TV automatically switches into standby mode.

1 Press the MENU button 6.

on the menu screen then push green to select the symbol ① 2 Push joystick @ to blue or to yellow.

|   | Sleep Timer OFF |   |   |   |
|---|-----------------|---|---|---|
|   | Š               |   |   |   |
| • | 4               | ₽ | 0 | Œ |

3 Push to yellow.

4 Push to red or yellow to set time delay and press the joystick ©.

OFF 0:30 1:00 1:30 ...... 3:30 4:00

One minute before the TV switches into standby mode, a message is displayed on the screen.

5 Press the MENU button 6 to restore the normal TV picture.

## Adjusting the Picture Rotation

### (KV-28W52U only)

If, due to the earth magnetism, the picture slants, you can use the function 'Picture Rotation' to readjust the picture.

Press the MENU button .

Z Push joystick ♥ to blue or green to select the symbol 🖹 on the menu screen then push to yellow.



3 Push to blue or green to select 'Picture Rotation' then push to yellow.

4 Push to red or yellow to adjust the picture rotation then press the joystick **@**. The adjusting range is -5 to +5.

5 Press the MENU button © to restore the normal TV picture.

## **Skipping Programme Positions**

with the PROGR+/- buttons. However, you can still watch the channel of the skipped This function enables you to skip unused programme positions when selecting them programme position by using the number buttons.

Press the MENU button (

Push joystick  $\pmb{\Theta}$  to blue or green to select the symbol  $\vec{\Xi}$  on the menu screen then push to yellow.

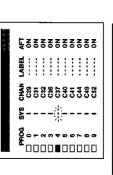
'Manual Programme' then push Push to blue or green to select to yellow.



Push to blue or green to select the programme position you want to skip then push to yellow. 4

Push to blue or green until

--- appears in the 'SYS' position.



Press the joystick **@**.

Repeat steps 4 to 6 to skip other programme positions.

S Press the MENU button ( to restore the normal TV picture.

## Captioning a Station Name

Names for channels are usually automatically taken from teletext if available. You can however name a channel or an input video source using up to five characters (letters or numbers).

Press the MENU button (6).

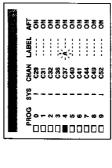
Push joystick  ${\bf f Q}$  to blue or green to select the symbol  ${\bf f \Box}$  on the menu screen then push to yellow.

Manual Programme' then push Push to blue or green to select to yellow. m



yellow repeatedly until the first element of the LABEL' position is highlighted. Push to blue or green to select the channel you wish to caption then push to 4

Select the other four characters a letter or number and push to Push to blue or green to select yellow (select '-' for a blank). in the same way.



After selecting all the characters, press the joystick .

Repeat steps 4 to 6 to caption names for other channels.

Press the MENU button (a) to restore the normal TV screen.  $\infty$ 

### Dolby Pro Logic

## **Setting Up Dolby Pro Logic**

Before viewing Dolby Pro Logic encoded programmes, you have to set up the levels Normally this is required only when you install the TV and the speakers or change or modes of the speakers. their positions.

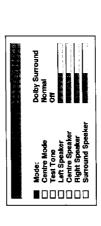
1 Press the MENU button ©.

Push joystick (1) to blue or green to select the symbol push to yellow.

Push to blue or green to select 'Dolby Pro Logic Setup' then push to yellow.



Push to blue or green to select 'Mode' then push to yellow.



if you do not want to use the surround speakers if you want to use all the five speakers Push to red or yellow to select the mode then press the joystick (D. Dolby Pro Logic: Dolby 3 Stereo:

Push to blue or green to select 'Centre Mode' then push to yellow.

7 Push to red or yellow to select the desired mode then press the joystick **@** if you want a wider bandwidth sound effect if you do not want to use the centre speaker if you want to activate all the speakers Phantom: Normal: Wide:

Push to blue or green to select 'Test Tone' then push to yellow.  $\infty$ 

Push to red or yellow to select 'On' then press the joystick **@** The test tone cycles through all the speakers.

Push to blue to select 'Left Speaker' then push to yellow. The test tone stays at the selected speaker only. Push to red or yellow to adjust the sound level then press the joystick  $\pmb{\Theta}$ .

Push to blue or green to select another speaker then push to yellow. 12

Repeat steps 11 to 12 to adjust the sound levels of all the other speakers. 7

Press the MENU button ( to restore the normal TV screen. 14

Dolby Pro Logic

## **Presetting Dolby Pro Logic**

With Dolby Pro Logic Surround mode selected, you can experience three dimensional To experience programmes encoded in Dolby Surround sound, preset the surround sound when watching Dolby Surround encoded programmes. mode to 'Pro Logic' as shown below.

Press & a on the remote commander.

Push joystick **(P)** to blue or green to select 'Pro Logic'.

Off
Pro Logic
Pseudo Stereo
Spartial
Club
Theatre
Theatre
Church
Stadium 

3 Press → to restore the normal TV screen.

Or alternatively you can select 'Pro Logic' in the surround mode of the 'SOUND CONTROL' menu (see page 20)

### **Teletext**

### **Teletex**

the broadcaster (usually page 100) gives you information on how to use Most TV channels broadcast information via teletext. The index page of the service.

Make sure you use a TV channel with a strong signal, otherwise teletext errors may occur.

## Switching Teletext on and off

Select the channel which carries the teletext service you wish to view.

If no teletext signal is broadcast, the indication P100 is displayed on a black Press ( 6) to display teletext. screen.

Input three digits for the page number using the number buttons **3**. The page counter searches for the page and after some seconds the page is displayed. m

Press  $\bigcirc$  **©** to return to the normal TV picture.

## **Using Other Teletext Functions**

🕀 🚇. Press once again to cancel. Press once again to cancel. (a) (b) for the next page or (c) (d) for the preceding page Swhen in teletext mode. return to the normal teletext programme. Press again to superimposed on the TV Now the teletext page is display. Press Access the next or preceding Reveal hidden information Freeze a teletext subpage (e.g.: answers to a quiz) Mix the mode teletext page

### Favourite page system

You can store up to four of your favourite teletext pages per Teletext service. In this way you have quick access to the pages you frequently use.

### Storing pages

1 Use the number buttons @ to select the page you would like to store.

2 Press 🔷 🚯 twice.

The colour prompts at the bottom of the screen flash.

3 Push the joystick to the desired colour to store the selected page. The page is now stored on this colour.

Repeat steps 1 to 3 for the other 3 pages.

### **Displaying the Favourite Pages**

1 Press 🚯 🚯.

2 Push the joystick **@** to the colour on which the desired page is stored.

Make sure you press 🕀 🕲 , otherwise the normal Fastext facility operates.

### Using Fastext

(only available, if the TV station broadcasts Fastext signals)

With Fastext you can access pages with one key stroke . When Fastext is broadcast, a colour-coded menu appears at the bottom of the screen. The colours of this menu correspond to the red, green, yellow and blue marks  $\mathbf{\Theta}$  on the Remote Commander.

Push the joystick **(9)** to the colour mark which corresponds to the colour-coded menu. The page is displayed after some seconds.

# **Connecting Optional Equipment**

Optional Equipment

There is a wide range of optional equipment you can connect to your TV. Refer to the illustrations on the front flap page of this manual.

| Symbol        | Acceptable input signals                 | Available output signals            |
|---------------|--|-------------------------------------|
| <b>1</b> ■ 1  | Normal audio/video and RGB               | Audio/video from TV tuner           |
| ⊕2/-€32M      | Normal audio/video and S video           | Audio/video from selected<br>source |
| <b>83.⊕38</b> | Normal audio/video and S video No output | No output                           |
| ₩             | No inputs                                | Audio from selected source.         |

### Connecting Headphones

Plug in the headphones to the socket  $\bigcap$   $\blacksquare$  on the front of the TV.

### About S video input

Video signals may be separated into Y (luminance) and C (chrominance) signals. Separating the two signals prevents interference and thus improves the picture quality.

### Notes on connections:

- If the picture or sound is distorted, move the VCR away from the TV.
- When connecting a monaural VCR, connect only the white jack to both the TV and VCR.

# **Selecting Input and Output Signals**

 ⊕ to select the input or the menu system to select input and output. This section explains how to select the output signal from ⊕ 2/+® 2 M and how to select and view the input. You can use direct access buttons

# Selecting Input Signals With Direct Access Buttons

Press 🕘 🕲 🖪 repeatedly .

Press ○ 6 to restore the normal TV picture.

| Symbol on the screen | Input Signal                            |
|----------------------|---|
|                      |   |
| <del>년</del>         | Audio/video through Euro AV connector   |
| <b>:</b> ©           | RGB through Euro AV connector           |
| ⊕2                   | Audio/video through Euro AV connector 🕅 |
| <u>€</u> 32          | S video through Euro AV connector 🔯     |
| <b>£</b>             | Audio/video through the phono jacks 🖸   |
| <b>€</b>             | S video through the 4 pin DIN B         |

## Selecting With the Video Connection Menu

Press the MENU button .

▤ Push joystick 

to blue or green to select →□→ for "Video Connection" then push to yellow.

£ £ 2 ÈÈ. ■ TV Screen <u> → 🗅 ⊖ @</u>

Push to blue or green to select 'TV Screen' (input source for the TV Screen) or 'Output' (output source for  $\oplus$  2/-83 2  $\blacksquare$ ) then push to yellow  $\textcircled{\textbf{0}}$ . M

Push to red or yellow repeatedly to select the desired input or output source then press the joystick  $\pmb{\Theta}$ . 4

Press the MENU button © to restore the normal TV picture. S

Note: If you select 'AUTO' for output, the output source automatically becomes the same as the desired input source.

### **Using AV Label Preset**

This function enables you to label the input sources using up to five characters (letters or numbers).

Press the MENU button ®

Push joystick (1) to blue or green to select the symbol [2] on the screen then push to yellow.

ľ

4 Push to blue or green to select the desired input source then push to yellow.

Push to blue or green to select a letter or number then push to yellow (select '-' for Select the other four characters in the same way. a blank)

After selecting all the characters, press the joystick . ဖ

Repeat steps 4 to 6 to label other input sources.

Press the MENU button ( to restore the normal TV screen.  $\infty$ 

### Remote Control of Other Sony Equipment

You can control other Sony remote controlled equipment using the buttons ② on the Remote Commander.

Set the VTR 1/2/3 MDP selector according to the equipment VTR 1: Beta VCR MDP: Video Disk Player VTR 2: 8mm VCR VTR 3: VHS VCR

2 Use the buttons @ to operate the equipment.

selector to the same position as the VTR 1/2/3 MDP selector on the • If your video equipment has a COMIMAND MODE selector, set this TV Remote Commander Notes:

• If the equipment does not have a certain function, the corresponding button on the Remote Commander does not work.

<del>--- 21 --</del>

| D     |  |
|-------|--|
| otin  |  |
| esh   |  |
| roubl |  |
| F     |  |

For Your Information

Here are some simple solutions to the problems which affect the picture and sound.

Solution

Problem

| No picture (screen is dark), no sound                      | •Plug the TV in.  •Press ① ■ on the TV. (If ♂ indicator ■ is on, press ○ ⑤ or a programme number ⑤ on the Remote Commander.)  •Check the aerial connection.  •Check if the selected video source is on.  •Turn the TV off for 3 or 4 seconds then turn it on again using ② ■. |
|--|---|
| Poor or no picture (screen is dark),<br>but good sound     | • Press MENU <b>(B)</b> to enter the 'PICTURE CONTROL' menu and adjust 'Contrast', 'Brightness' and 'Colour'.   |
| Poor picture quality when watching<br>an RGB video source. | •Press 乇 🕲 🖪 repeatedly to select +Ö.   |
| Good picture but no sound                                  | <ul> <li>Press ∠ + ® ■.</li> <li>If w is displayed on the screen, press w ●.</li> <li>Check the speaker lead connections.</li> </ul>  |
| No colour for colour programmes                            | • Press MENU <b>(B)</b> to enter the 'PICTURE CONTROL' menu, select 'Reser' then press the joystick <b>(D)</b> .  |
| Remote Commander does not function.                        | •Replace the batteries  |

If you continue to have problems, have your TV serviced by qualified personnel. Never open the casing yourself.

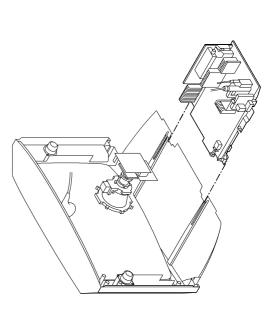
SECTION 2

2-1. REAR COVER REMOVAL

DISASSEMBLY

2-2. SPEAKER REMOVAL





(a) Insert into heatsink.

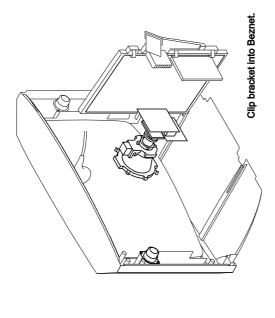
1 Snap off from main bracket.



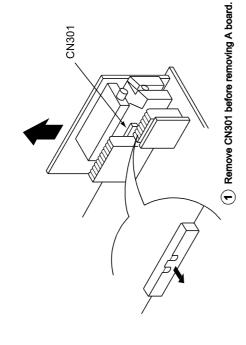
>o 1 Five screws (BVTP 4x16)

2 Rear Cover

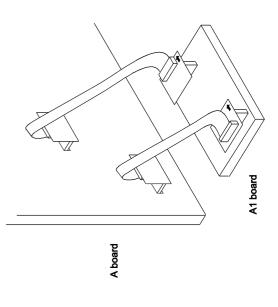
2-4-2. SERVICE POSITION (2)

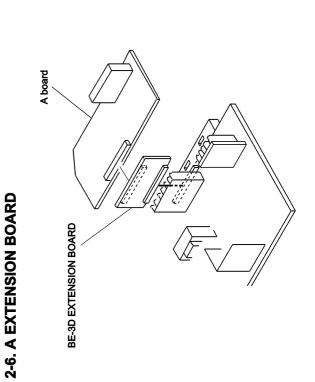


2-5. A BOARD REMOVAL

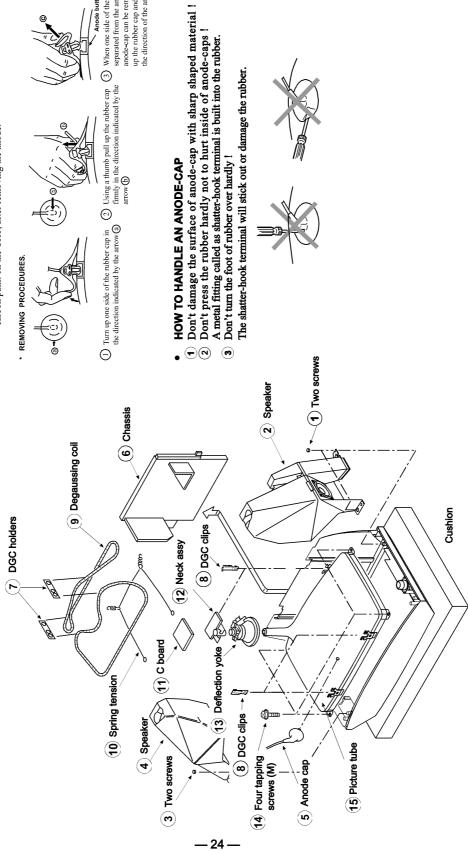


2-7. A1 EXTENSION BOARDS



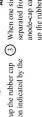


### 2-8. PICTURE TUBE REMOVAL



### REMOVAL OF ANODE-CAP

Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT, after removing the anode.



Symbol on side of the rubber cap is separated from the anode button, the anode cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ©



### REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET **BOTTOM PLATES.**

### (1) REMOVING THE PLATES

circuit, the bottom plates fitted to the main chassis bracket require to be removed. In the event of servicing being required to the solder side of the D Board printed This is performed by cutting the gates with a sharp wire cutter at the locations shown and indicated by arrows.

Note: There are 5 plates fitted to the main bracket and secured by 4 or 6 gates. Only remove the necessary plate to gain access to the circuit board.

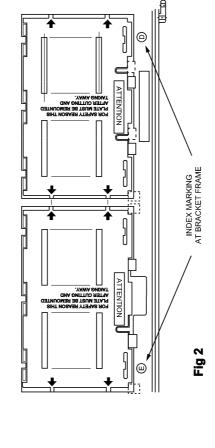
For safety reasons, on no account should the plates be removed and not refitted after servicing.

### (2) REFITTING THE PLATES

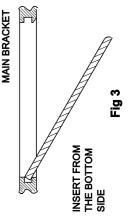
Because the plates differ in size it is important that the correct plates are refitted in their original location.

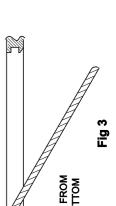
The plates are identified by markings A-B-C-D-E on their top side

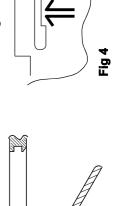
- Identify the plate by locating its marking. -: 2: 6: 4:
- Turn the plate over noting where the marking is located.
- Locate the corresponding marking indicated on the main chassis bracket. See Fig 2.
  - Refit the plate as indicated in Fig 3 with the markings located next to each other.



removed at a later stage, this can be achieved by inserting a screwdriver in the snap-recess indicated as in Fig 4 and lifting out. In the event of the plates requiring to be







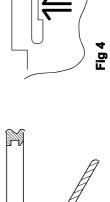


Fig 1

FOR SAFETY REASON THIS AFTER CUTTING AND TAKING AND TAKING AND TAKING AND TAKING AND TAKING AND TAKING ANAY.

### SECTION 3 SET - UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to these settings:

| Contrast     | 80%   | (or remote control |
|--------------|-------|--------------------|
|              | norma | al)                |
| ⇒ Brightness | 50%   |                    |

- Carry out the following adjustments in this order :
- 1. Beam landing
- 2. Convergence
- 3. Focus
- 4. White balance

Note: Testing equipment required.

- 1. Color bar/pattern generator
- 2. Degausser
- 3. DC power supply
- 4. Digital multimeter
- 5. Oscilloscope

### Preparation:

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

### 3-1. BEAM LANDING

- Input the white signal with the pattern generator.
   CONTRAST BRIGHTNESS
- 2. Position neck assy as shown in Fig.3-2.
- 3. Set the pattern generator raster signal to red.
- 4. Move the deflection yoke forward and adjust with the purity control so that the red is at the centre and the blue and the green take up equally sized areas on each side. (See Fig. 3-1 3-3)
- 5. Move the deflection yoke forward and adjust so that the entire screen becomes red. (See Fig. 3-1)
- 6. Switch the raster signal to blue, then to green and verify the condition.
- 7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
- 8. If the beam does not land correctly in all the corners, use a magnet to adjust it. (See Fig. 3-4)

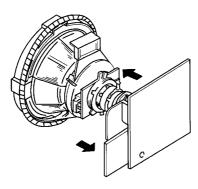
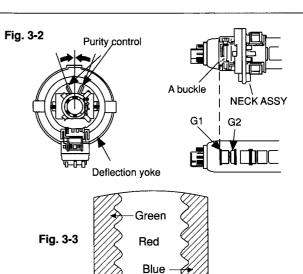
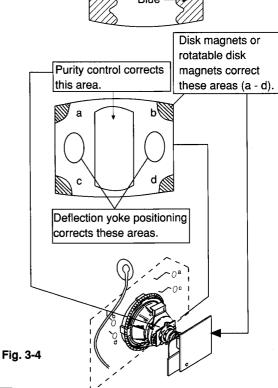


Fig. 3-1



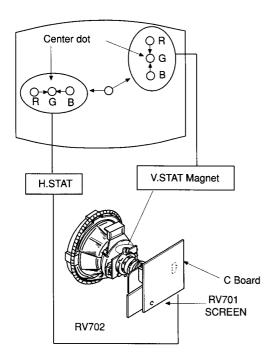


### **3-2. CONVERGENCE**

### **Preparation:**

- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide a dot pattern.

### (1) Horizontal and vertical static convergence

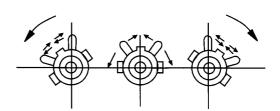


- 1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the centre of the screen.
- 2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the centre of the screen.
- 3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the centre of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.

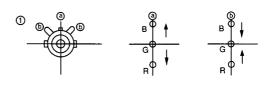
  (In this case, the H.STAT variable resistor and the

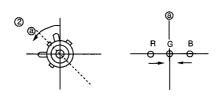
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

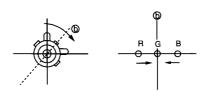
• Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.

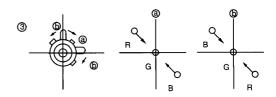


4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.

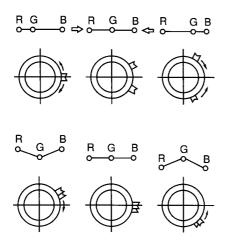




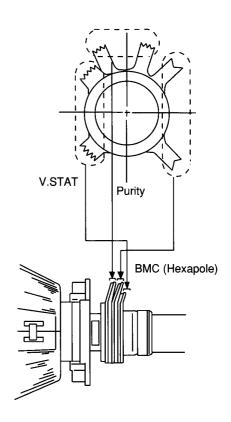




• Operation of BMC (Hexapole) Magnet



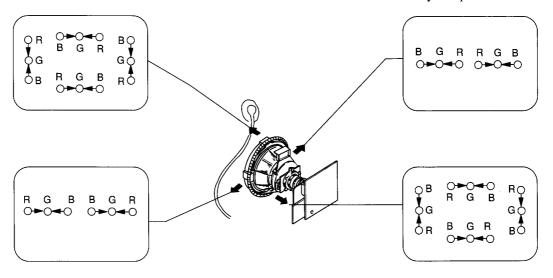
The respective dot position resulting from moving each magnet interact, so be sure to perform adjustment while tracking.
 Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the centre of the screen (by moving the dots in the horizontal direction).



### (2) Dynamic convergence adjustment.

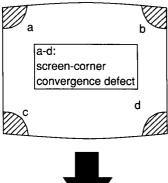
### **Preparation:**

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
- 1. Slightly loosen the deflection yoke screws.
- 2. Remove the deflection yoke spacer.
- 3. Move the deflection yoke as shown in the figure below and optimize the convergence.
- 4. Tighten the deflection yoke screws.
- 5. Re-install the deflection yoke spacer.

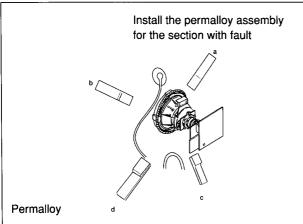


### (3) Screen corner convergence.

If you are unable to adjust the corner convergence properly, correct them with the use of permalloy assemblies.







### 3-3. WHITE BALANCE

### **G2** Setting

- Switch the set into AV mode (apply no signal to the AV connectors).
- 2. Connect a Volt Meter to Test Point 1 on the A board.
- 3. Adjust RV01 to obtain a voltage of  $3.0V \pm 0.3V$ .

### White balance adjustment

- 1. Input an all white signal from the pattern generator.
- 2. Enter into the service mode.
- 3. Enter into Picture Adjustment service menu.
- 4. Select sub-contrast and adjust to 7.
- 5. Select the Green Drive and adjust so that the white balance becomes optimum.
- 6. Select the Blue Drive and adjust so that the white balance becomes optimum.
- 7. Press the TV button to return to TV operation.

| PICTURE ADJUSTMENT |     |
|--------------------|-----|
| AFC mode           | 1   |
| REF position       | 2   |
| SCP BGR            | 1   |
| SCP BGF            | 1   |
| Trap Fo            | 0   |
| Sub contrast       | Adj |
| Sub colour         | Adj |
| Sub brightness     | Adj |
| Sub hue            | Adj |
| Green drive        | Adj |
| Blue drive         | Adj |
| Green cutoff       | Adj |
| Blue cutoff        | Adj |
| Gamma              | 0   |
| Pre / overshoot    | 0   |
| Y delay            | 3   |

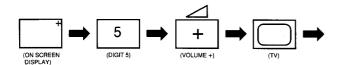
### SECTION 4 CIRCUIT ADJUSTMENTS

### 4-1. ELECTRICAL ADJUSTMENTS

Service adjustment to this model can be performed with the supplied remote commander RM-862.

### **HOW TO ENTER INTO SERVICE MODE**

- 1. Turn on the main power switch of the set and enter into standby mode.
- 2. Press the following sequence of buttons on the Remote Commander.



"TT--" will appear in the top right corner of the screen. Other status information will also be displayed.

3. Press MENU on the commander to obtain the following menu on the screen.

| TEST MENU            |  |
|----------------------|--|
| > Picture adjustment |  |
| Geometry             |  |
| Wide                 |  |
| MSP                  |  |
| IC status            |  |
| Current TV status    |  |
|                      |  |

- 4. Move to the corresponding adjustment using the  $\diamondsuit$  button on the commander.
- 6. Turn off the power to quit the service mode when adjustments are completed.

| PICTURE ADJUSTMENT |     |
|--------------------|-----|
| AFC mode           | 1   |
| REF position       | 2   |
| SCP BGR            | 1   |
| SCP BGF            | 1   |
| Trap Fo            | 0   |
| Sub contrast       | Adj |
| Sub colour         | Adj |
| Sub brightness     | Adj |
| Sub hue            | Adj |
| Green drive        | Adj |
| Blue drive         | Adj |
| Green cutoff       | Adj |
| Blue cutoff        | Adj |
| Gamma              | 0   |
| Pre / overshoot    | 0   |
| Y delay            | 3   |

| GEOMETRY ADJUSTME | NT  |
|-------------------|-----|
| V Size            | Adj |
| V Position        | Adj |
| S Correction      | Adj |
| V Linearity       | Adj |
| H Size            | Adj |
| H Position        | Adj |
| Pin Amp           | Adj |
| Pin Phase         | Adj |
| AFC Bow           | Adj |
| AFC Angle         | Adj |
| EHT V             | Adj |
| EHT H             | Adj |
| Corner Pin        | Adj |

| WIDE           |    |
|----------------|----|
| V Aspect       | 47 |
| V Scroll       | 31 |
| Upper V Lin    | 0  |
| Lower V Lin    | 0  |
| Left Blanking  | 1  |
| Right Blanking | 11 |
|                |    |

| N | MSP                 |     |  |
|---|---------------------|-----|--|
|   | AGC ON/OFF          | ON  |  |
|   | Constant gain CDB   | 0   |  |
|   | FM prescale FMP     | 36  |  |
|   | Zwei mono-st WHI    | 36  |  |
|   | Zwei st-mono WLO    | 18  |  |
|   | Zwei mono-bi WMH    | 36  |  |
|   | Zwei bi-mono WLO    | 18  |  |
|   | Time zwei WML       | 51  |  |
|   | Fawct limit         | 10  |  |
|   | Fawct soll init FAW | 12  |  |
|   | Fawer tol           | 2   |  |
|   | Nicam Err Max CCT   | 10  |  |
|   | Nicam Err Min       | 0   |  |
|   | Nicam Prescale NIP  | 97  |  |
|   | Time Nicam          | 31  |  |
|   | Carrier mute CRM    | OFF |  |
|   | Audio clock ACO     | HIZ |  |
|   | Scart prescale      | 25  |  |
|   | Scart volume        | 64  |  |
|   |                     |     |  |

| IC STATUS (CXA2000 / CXA2040) |          |  |
|-------------------------------|----------|--|
| CXA2000                       |          |  |
| H lock                        | 1        |  |
| IKR                           | 1        |  |
| VNG                           | 0        |  |
| X-RAY                         | 0        |  |
| Colour system                 | 3        |  |
| CV1 Sync                      | 1        |  |
| CXA2040                       |          |  |
| Sync sep                      | 1        |  |
| S1 mode pin                   | 01       |  |
| S2 mode pin                   | 01       |  |
| <u>TUNER</u>                  |          |  |
| Tuner status                  | 01101011 |  |

| TV STATUS         |                   |
|-------------------|-------------------|
| Text system       | C TEXT/TV TEXT    |
| Dolby             | NO/YES            |
| Text language set | WEST/EAST/RUSSIAN |
| Menu language set | WEST/EAST/RUSSIAN |
| Destination       | B/D/U/K/L/E/A/R   |
| Scart 16:9        | OFF/ON            |
| RGB priority      | OFF/ON            |
| Ageing            | OFF/ON            |
| Size              | 28/24             |
| Colour trap sw    | SECAM/ALL         |
| Velocity mod      | ON/OFF            |
| AFT STATUS        | WINDOW/HIGH/LOW   |

### **SUB BRIGHTNESS ADJUSTMENT**

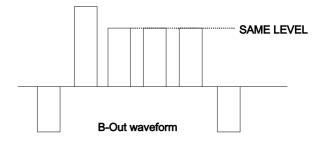
- 1. Input a Phillips pattern.
- 2. Set the picture control to minimum.
- 3. Enter into the Picture Adjustment Service Menu.
- 4. Adjust the Sub-Brightness data so that there is barely a difference between the 0 IRE and 10 IRE signal.

### **SUB CONTRAST ADJUSTMENT**

- 1. Input a video that contains a small 100% area on a black background.
- 2. Set the picture control to maximum.
- 3. Connect an oscilloscope to pin 3 of CN301 (A board).
- 4. Enter into the Picture Adjustment Service Menu.
- 5. Adjust the Sub-contrast data to obtain a black to white amplitude of 2.50 volts.

### **SUB COLOUR ADJUSTMENT**

- 1. Receive a PAL Colour Bar video signal.
- 2. Connect an oscilloscope to pin 3 of CN301 (A board).
- 3. Enter into the Picture Adjustment Service Menu.
- 4. Adjust the sub colour data so that cyan, magenta and blue colour bars are of equal height.



NOTE: The data shown in the TV STATUS table is dependant on destination, screen size and country.

### SYSTEM B/G, D/K, I & L I.F ADJUSTMENT

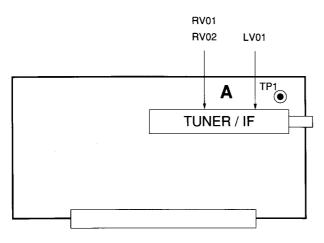
- 1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
- 2. Enter into the I.F adjustment service mode (i.e. " TT 59 " ) to fix the I.F frequency to 38.9 MHz.
- 3. Enter into the service mode and select "Current TVStatus".
- 4. Adjust the I.F coil (LV01) until the "AFT Status" indicates a "Window" condition.

### SYSTEM L BAND 1 I.F ADJUSTMENT

- 1. Input an off air signal of between 60-100dBuV / 75 ohm terminated, via the tuner socket.
- 2. Enter into the I.F adjustment service mode (i.e. "TT 59") to fix the I.F frequency to 34.2 MHz.
- 3. Enter into the service mode and select "Current TVStatus".
- 4. Adjust the RV02 until the "AFT Status" indicates a "Window" condition.

### **TUNER AGC ADJUSTMENT**

- Receive a signal of 63dBuV / 75 ohm terminated via the tuner socket.
- 2. Measure the voltage at test point 1 (A board).
- 3. Adjust RV01 to obtain a voltage of  $3.0V \pm 0.3V$ .

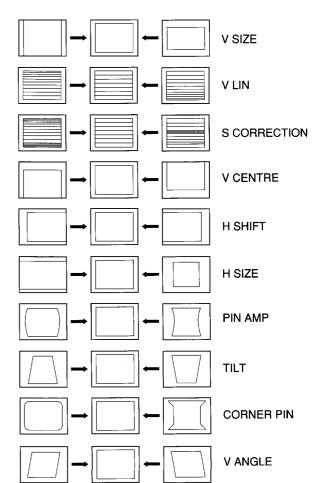


- A Board component side -

### **DEFLECTION SYSTEM ADJUSTMENT**

- 1. Enter into the Geometry Adjustment Service Menu.
- 2. Select and adjust each item in order to obtain the optimum image.

| GEOMETRY ADJUSTME | ENT |
|-------------------|-----|
| V Size            | Adj |
| V Position        | Adj |
| S Correction      | Adj |
| V Linearity       | Adj |
| H Size            | Adj |
| H Position        | Adj |
| Pin Amp           | Adj |
| Pin Phase         | Adj |
| AFC Bow           | Adj |
| AFC Angle         | Adj |
| EHT V             | Adj |
| EHT H             | Adj |
| Corner Pin        | Adj |



### 4-2. TEST MODE 2:

Is available by pressing Test button twice, OSD " TT " appears. The functions described below are available by pressing the two numbers. To release the Test mode 2, press 0 twice, or switch the TV into stand-by mode.

| 00    | Switch test mode 2 off  |
|-------|---|
| 01    | Picture maximum.  |
| 02    | Picture minimum.  |
| 03    | Volume 35%  |
| 04-05 | Dummy   |
| 06    | Volume 80%  |
| 07    | Set ageing Condition<br>(Volume min., Picture max., Brightness max)   |
| 08    | Shipping Condition (Analog Values are RESET due to factory setting, Prog 1 is selected, TT mode is switched off.)   |
| 09    | 'Menu' Flag reset   |
| 10    | Tenth entry is deleted.   |
| 11-12 | Dummy   |
| 13    | Forced AV 16:9 detection on/off   |
| 14    | Display TV configeration  |
| 15    | Read factory setting from NVM, reads Volume, Balance, Treble, Bass, Brightness, Contrast, Hue, Sharpness, Colour values from ROM to the actual used values (Last power memory). |
| 16    | Dummy   |
| 17    | Preset label for AV Sources.  |
| 18    | RGB Priority on/off.  |
| 19    | Clear all preset labels.  |
| 20    | Tenth entry is deleted.   |
| 21    | Sub Contrast.   |
| 22    | Sub Colour.   |
| 23    | Sub Brightness.   |
| 24    | Set destination = U RGB Priority = off.   |
| 25    | Set destination = D RGB Priority = off.   |
| 26    | Set destination = B RGB Priority = on.  |
| 27    | Set destination = K RGB Priority = off.   |
| 28    | Set destination = L RGB Priority = off.   |
| 29    | Set destination = E RGB Priority = off.   |
| 30    | Tenth entry is deleted.   |
| 31    | Set destination = A RGB Priority = on.  |
| 32    | Set destination = R   |
| 33-35 | Dummy   |
| 36    | Rotation coil test  |
| 37    | Select 25" chassis  |
| 38    | Select 25" chassis  |
| 39    | Trap SW select  |
| 40    | Tenth entry is deleted.   |
| 41    | Re-initialise NVM.  |
| 42    | Default program into NVM.   |
| 43    | Initialise CXA2000 settings.  |
| 44    | Initialise all favorite pages to be 100.  |
|       | initialist all laterite pages to be 100.  |

| 46    | IR channel presetting mode. The channel presetting can be done by a speacial IR transmitter (dealer commander.)   |  |
|-------|---|--|
| 47    | Reset NVM testbyte.   |  |
| 48    | Set NVM testbyte to 44h.  |  |
| 49    | Erase the NVM test byte (This byte detects already stored NVM's). After selecting this function, switch TV off and on the NVM will be preset by the micro controller. |  |
| 50    | Tenth entry is deleted.   |  |
| 51    | Text interlace ODD.   |  |
| 52    | Text interlace EVEN.  |  |
| 53    | Auto picture on.  |  |
| 54    | Auto picture off.   |  |
| 55    | Auto cutoff enable.   |  |
| 56    | Auto cutoff disable.  |  |
| 57-58 | Dummy   |  |
| 59    | Lock to centre frequency.   |  |
| 60    | Tenth entry is deleted.   |  |
| 61    | Turn on Dolby Prologic mode.  |  |
| 62    | White noise to left speaker.  |  |
| 63    | White noise to right speaker.   |  |
| 64    | White noise to centre speaker.  |  |
| 65    | White noise to surround speaker.  |  |
| 66    | Set standard stereo mode.   |  |
| 67    | Set prologic normal mode.   |  |
| 68    | Set prologic wide mode.   |  |
| 69    | Set prologic phantom mode.  |  |
| 70    | Tenth entry is deleted.   |  |
| 71    | Lumisponder mode 1  |  |
| 72    | Lumisponder mode 2  |  |
| 73    | Lumisponder off   |  |
| 74    | Text centre adjustment  |  |
| 75    | Reset picture settings  |  |
| 76    | Dummy   |  |
| 77    | Reset sound settings  |  |
| 78-79 | Dummy   |  |
| 80    | Tenth entry is deleted.   |  |
| 81    | VM on.  |  |
| 82    | VM off.   |  |
| 83    | Set picture blanking lever delay 40ms.  |  |
| 84    | Set picture blanking lever delay 80ms.  |  |
| 85    | Set picture blanking lever delay 160ms.   |  |
| 86-89 | Dummy.  |  |
| 90    | Tenth entry is deleted.   |  |
|       | · · · · · · · · · · · · · · · · · · ·   |  |

Note: In Test Mode the Menu display is switchable by the speaker mute (off) button.

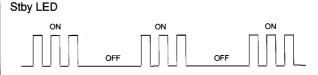
### 4-3. BE-3D SELF DIAGNOSTIC SOFTWARE

The identification of errors within the BE-3D chassis is triggered in 1 of 2 ways: -1: Bus busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the led (Series of flashes which must be counted) See Table 1, non fatal errors are reported with this method.

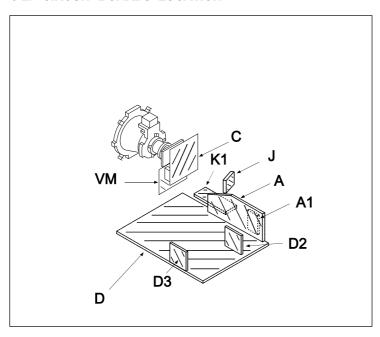
Table 1

LED ERROR **ERROR** COUNT Protection circuit trip < ANY TIME > 02 IIC SCL LOW < POWER UP ONLY > 03 IIC SDA LOW < POWER UP ONLY > 04 IIC SDA & SCL LOW < POWER UP ONLY > 05 Jungle/Choroma controller no acknowledge 06 < POWER UP ONLY > Video Switch no acknowledge < POWER UP ONLY > 07 Tuner no acknowledge 08 MSP no acknowledge 09 NVM no acknowledge 10 M3L TXD LOW < POWER UP ONLY > 11 M3L RXD LOW < POWER UP ONLY > 12 M3L ENABLE LOW < POWER UP ONLY > 13 M3L TXD & RXD LOW < POWER UP ONLY > 14 Compact Text test fail < POWER UP ONLY > 15 AV switch cannot power on reset 16 Cannot initialise jungle 17 NVM acknowledge fail after initialisation 18 Multiple devices with no acknowledge 19 < POWER UP ONLY > Compacttext run-time failure 20 AVSWITCH response failure after power up 21 JUNGLE/CHROMA controller response failure after power up 22 CompactText does not respond 23

Flash Timing Example: e.g. error number 3.



### 5-2. CIRCUIT BOARDS LOCATION



### 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

### Note:

 All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and tantalums

• All resistors are in ohms. k = 1000, M = 1000K

• Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power <sup>14</sup> W

: nonflammable resistor.
: internal component.

• : panel designation, or adjustment for repair.

 All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

Note: The components identified by shading and marked  $\hat{\bot}$  are critical for safety. Replace only with the part number specified.

Note: Les composants identifies par une trame et une marque A sont critiques pour la securite.

Ne les remplacer que par une piece portant le numero specifie.

### Reference information

| itelet ence inter | mation  |                          |
|-------------------|---------|--------------------------|
| RESISTOR          | : RN    | METAL FILM               |
|                   | : RC    | SOLID                    |
|                   | : FPRD  | NONFLAMMABLE CARBON      |
|                   | : FUSE  | NONFLAMMABLE FUSIBLE     |
|                   | : RS    | NONFLAMMABLE METAL OXIDE |
|                   | : RB    | NONFLAMMABLE CEMENT      |
|                   | : RW    | NONFLAMMABLE WIREWOUND   |
|                   | : ※     | ADJUSTABLE RESISTOR      |
| COIL              | : LF-8L | MICRO INDUCTOR           |
| CAPACITOR         | : TA    | TANTALUM                 |
|                   | : PS    | STYROL                   |
|                   | : PP    | POLYPROPYLENE            |
|                   | : PT    | MYLAR                    |
|                   | : MPS   | METALIZED POLYESTER      |
|                   | : MPP   | METALIZED POLYPROPYLENE  |
|                   | : ALB   | BIPOLAR                  |
|                   | : ALT   | HIGH TEMPERATURE         |
|                   | : ALR   | HIGH RIPPLE              |
|                   |         |                          |

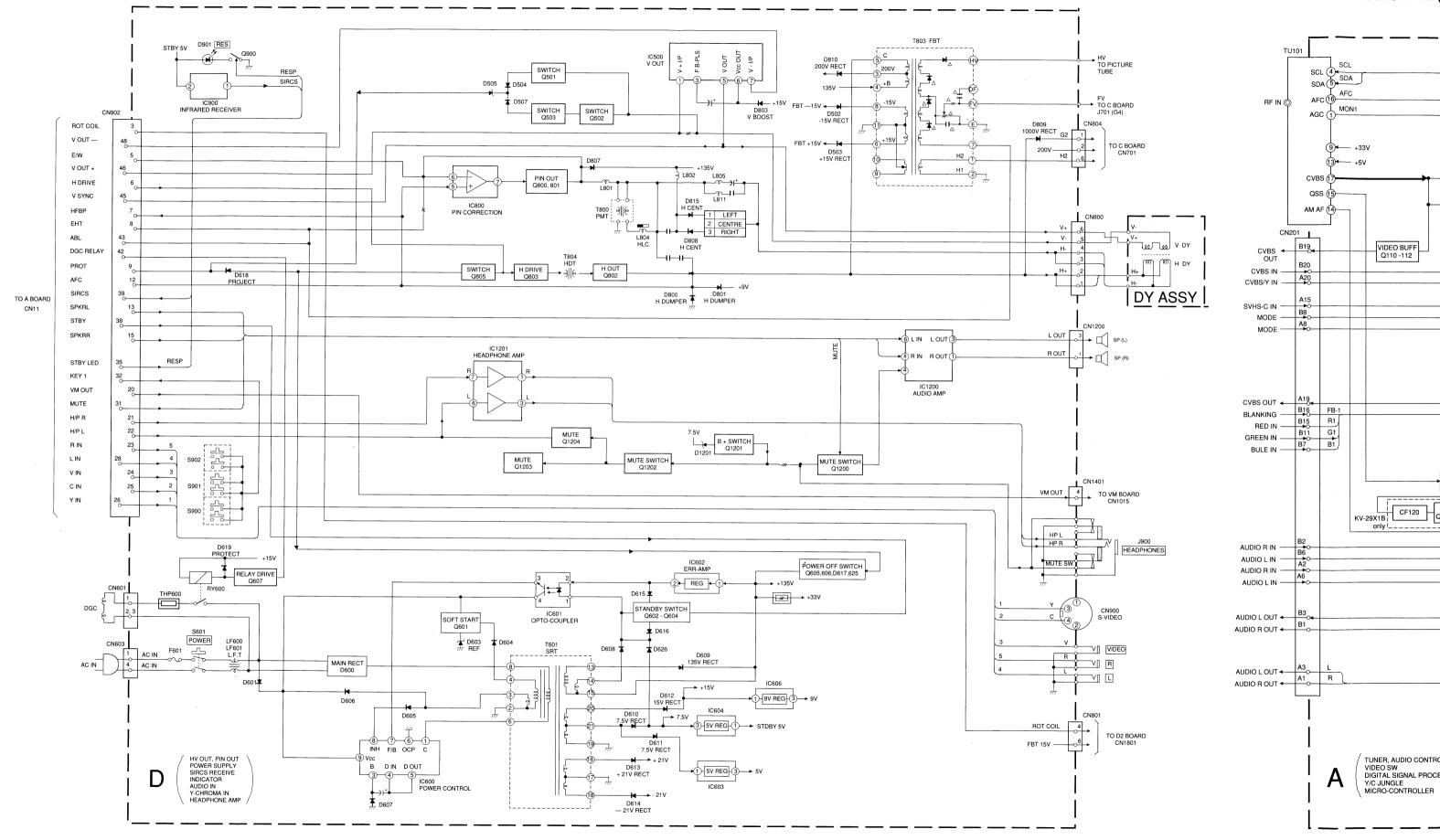
- Readings are taken with a colour-bar signal input.
- Readings are taken with  $10M\Omega$  digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.

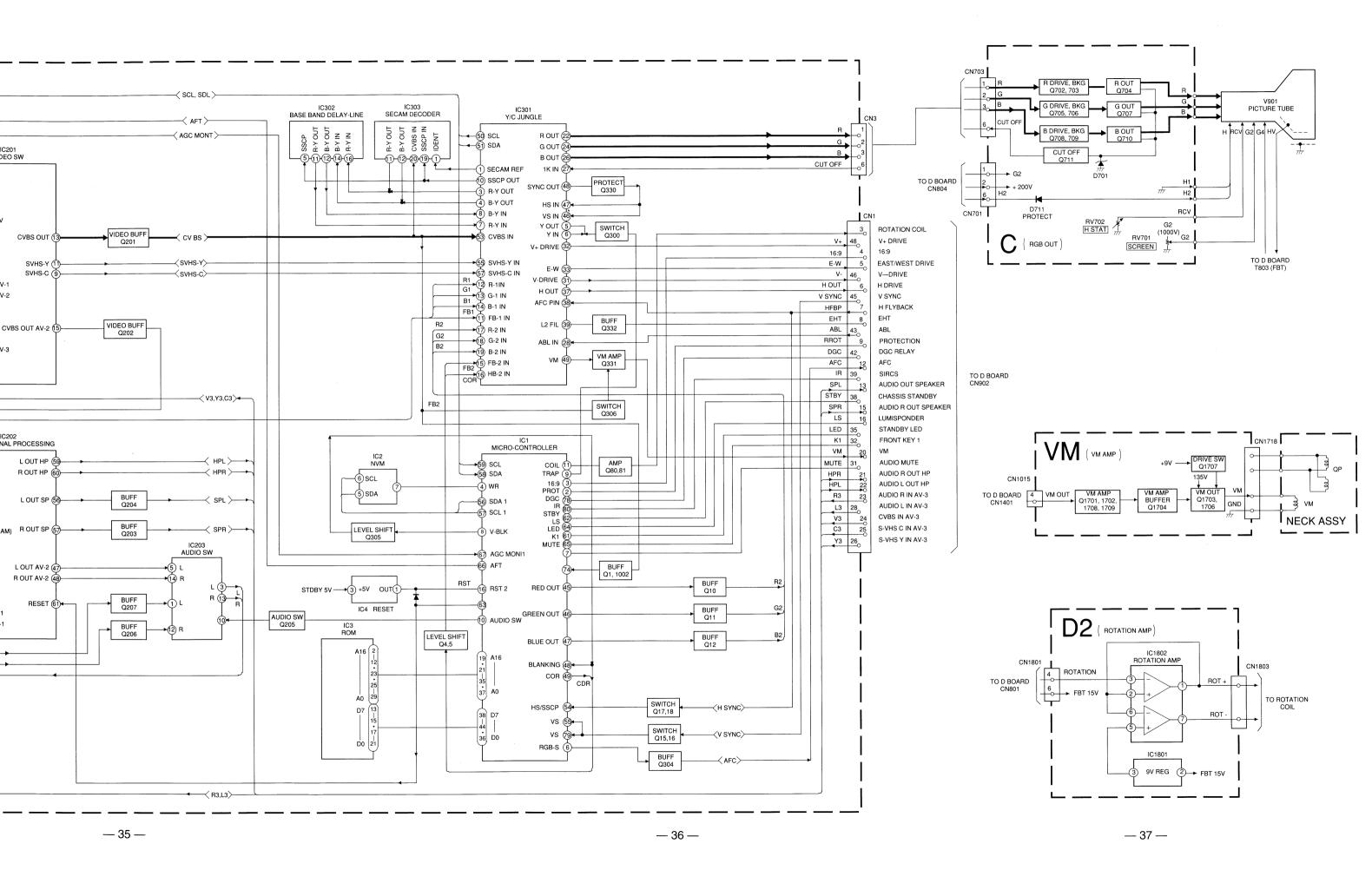
• : B+ bus.

• : signal path. (RF)

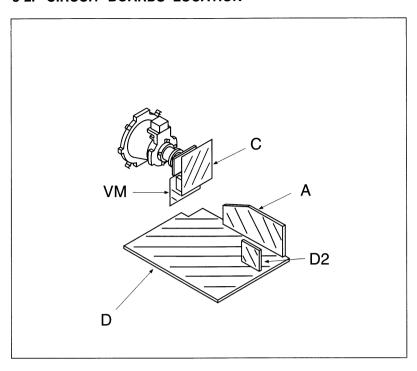
### 5-1. BLOCK DIAGRAM (1)

### BLOCK DIAGRAM





#### 5-2. CIRCUIT BOARDS LOCATION



#### 5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

#### Note:

All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and

All resistors are in ohms.

k = 1000, M = 1000K

Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch: 5 mm Rating electrical power ¼ W

: nonflammable resistor.

: internal component.

: panel designation, or adjustment for repair.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

: earth - ground. : earth - chassis. # : no mounted.

Note: The components identified by shading and marked are critical for safety. Replace only with the part number specified.

Note: Les composants identifies par une trame et une marque A sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

#### **Reference information**

RESISTOR : RN METAL FILM : RC SOLID : FPRD NONFLAMMABLE CARBON : FUSE NONFLAMMABLE FUSIBLE : RS NONFLAMMABLE METAL OXIDE : RB NONFLAMMABLE CEMENT : RW NONFLAMMABLE WIREWOUND ADJUSTABLE RESISTOR X COIL MICRO INDUCTOR : LF-8L

CAPACITOR : TA **TANTALUM** : PS STYROL

: PP POLYPROPYLENE

: PT MYLAR

: MPS METALIZED POLYESTER : MPP METALIZED POLYPROPYLENE

**BIPOLAR** : ALB

: ALT HIGH TEMPERATURE

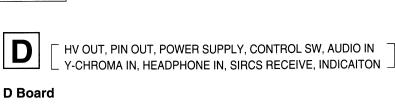
HIGH RIPPLE : ALR

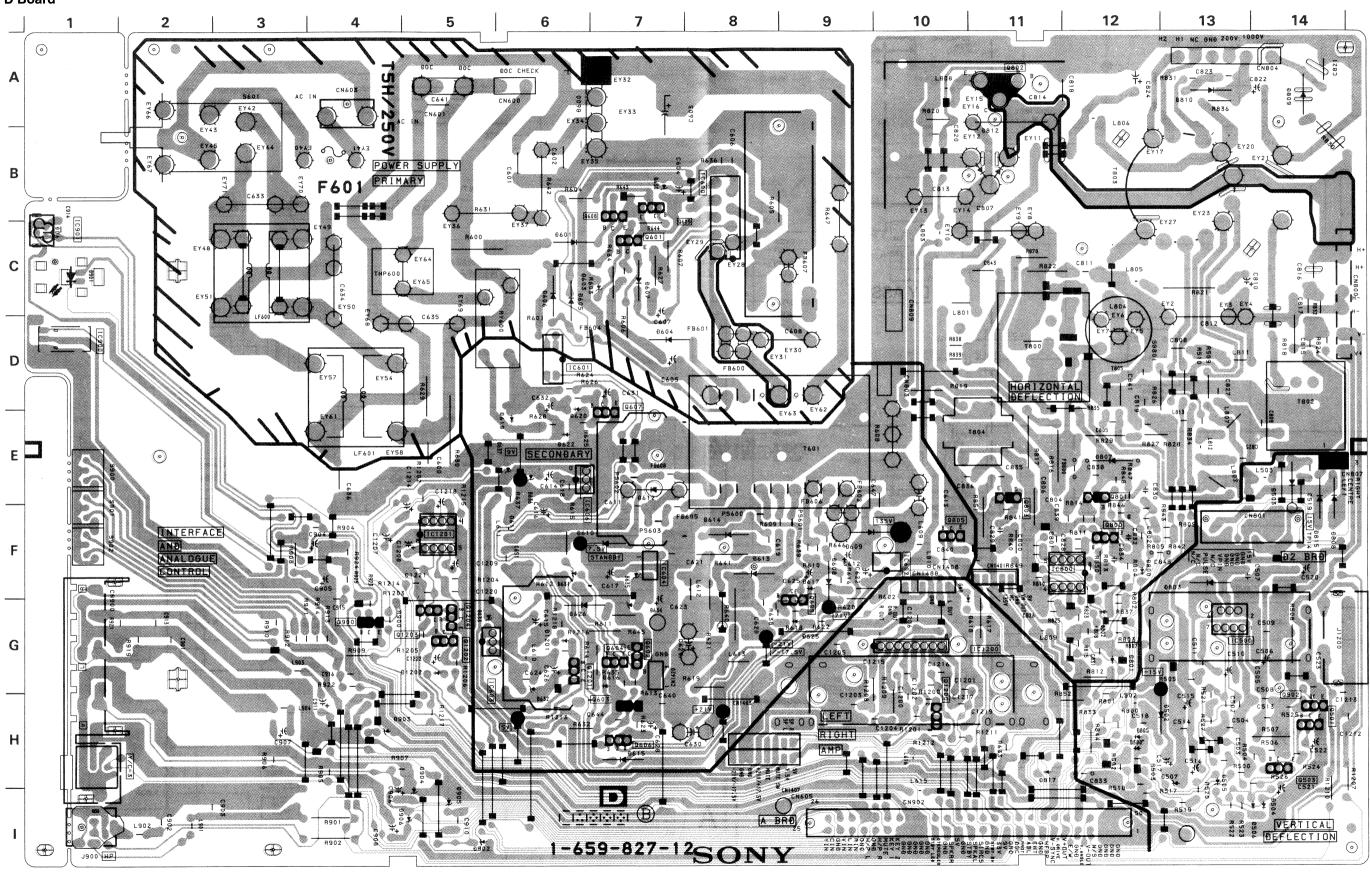
Readings are taken with a colour-bar signal input.

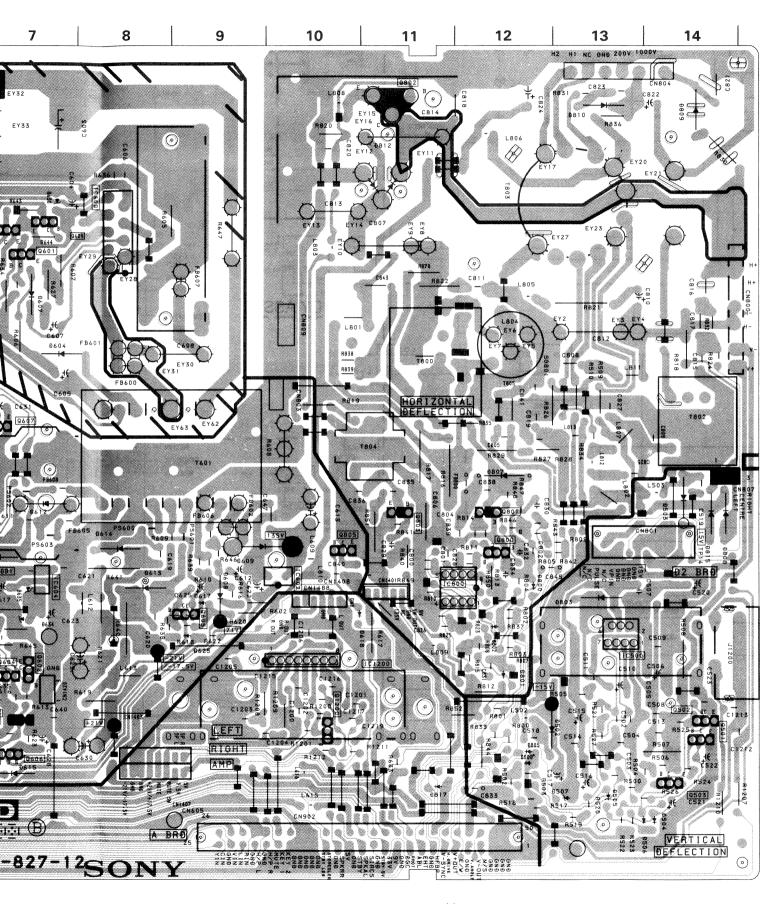
- Readings are taken with  $10M\Omega$  digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform references.

: B+ bus.

: signal path. (RF)







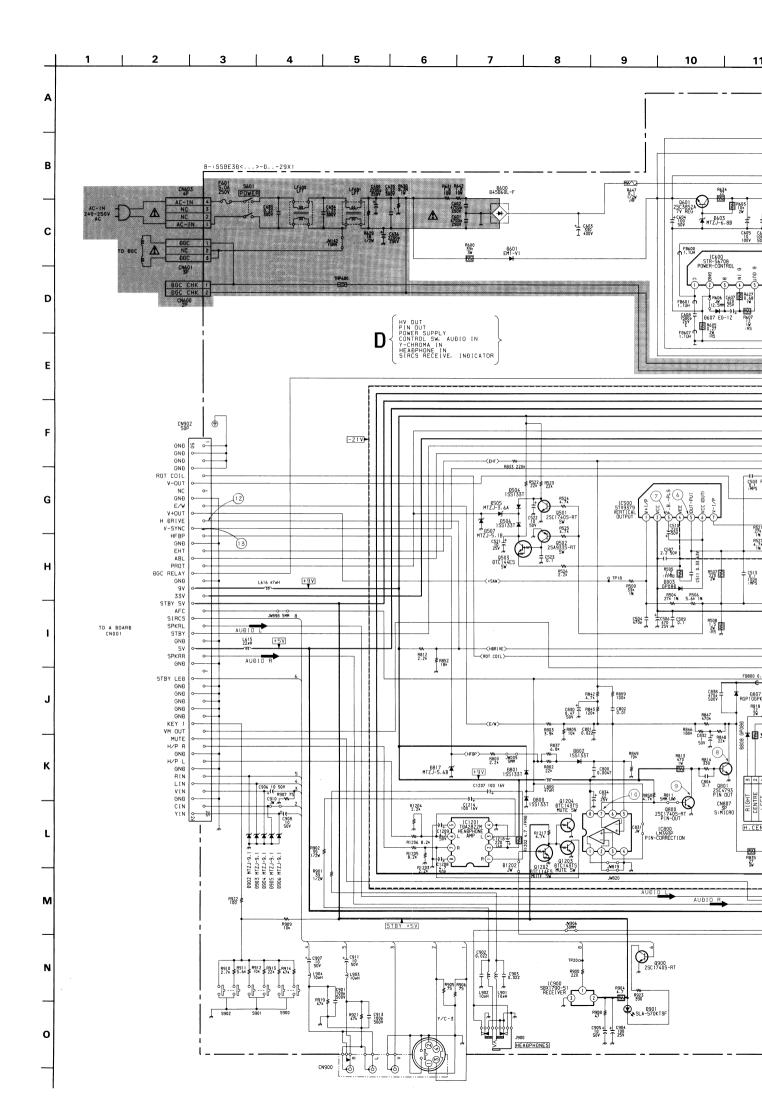


## NOTE:

The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

### D BOARD

| IC      |      | DIODE |      |  |  |
|---------|------|-------|------|--|--|
| IC500   | G-13 | D600  | A-7  |  |  |
| IC600   | B-8  | D601  | C-6  |  |  |
| IC601   | D-6  | D603  | C-7  |  |  |
| IC602   | F-10 | D604  | D-7  |  |  |
| IC603   | G-5  | D605  | C-6  |  |  |
| IC604   | F-7  | D606  | C-6  |  |  |
| IC606   | E-6  | D607  | C-7  |  |  |
| IC800   | F-12 | D608  | F-9  |  |  |
| IC900   | D-1  | D609  | F-9  |  |  |
| IC1200  | G-10 | D610  | F-7  |  |  |
| IC1201  | F-5  | D611  | F-6  |  |  |
|         |      | D612  | E-7  |  |  |
| TRANSIS | STOR | D613  | F-8  |  |  |
| Q501    | H-14 | D614  | F-8  |  |  |
| Q502    | H-14 | D615  | H-7  |  |  |
| Q503    | H-14 | D616  | G-7  |  |  |
| Q601    | C-7  | D617  | F-9  |  |  |
| Q602    | G-7  | D618  | F-11 |  |  |
| Q603    | H-7  | D619  | E-6  |  |  |
| Q604    | G-7  | D620  | E-6  |  |  |
| Q605    | F-9  | D622  | E-6  |  |  |
| Q606    | H-7  | D625  | G-9  |  |  |
| Q607    | D-7  | D626  | G-6  |  |  |
| Q800    | F-12 | D631  | F-6  |  |  |
| Q801    | E-12 | D800  | F-12 |  |  |
| Q802    | A-11 | D801  | G-12 |  |  |
| Q803    | E-11 | D802  | G-12 |  |  |
| Q805    | F-10 | D803  | F-13 |  |  |
| Q900    | G-4  | D807  | E-12 |  |  |
| Q1200   | H-10 | D808  | E-14 |  |  |
| Q1201   | G-6  | D809  | A-14 |  |  |
| Q1202   | G-5  | D810  | A-13 |  |  |
| Q1203   | G-5  | D812  | B-11 |  |  |
| Q1204   | G-5  | D815  | E-14 |  |  |
| DIODE   |      | D817  | H-11 |  |  |
| D500    | H-12 | D901  | C-1  |  |  |
| D502    | H-13 | D902  | I-5  |  |  |
| D503    | I-14 | D903  | H-4  |  |  |
| D504    | H-11 | D904  | H-5  |  |  |
| D505    | H-13 | D905  | I-5  |  |  |
| D506    | I-14 | D906  | I-5  |  |  |
| D507    | H-13 | D1201 | G-6  |  |  |
|         |      |       |      |  |  |



13 | 14 16\_\_\_\_ 15 | 17 | 18 | 19 20 21 <135V> | Finds | Find 1C601 TLP721 (94-ISOLATOR 9615 IC602 SE 135N ERR-AMP P638 1551331 W ■ R620 470k 1/20 R623 C628+1 R622 1/2V | 1/ 0606 DTA144ES PROTECTION R637 220 IC606 LM2940CT-9.0 +9V REG 2614 100 250 IC603 LM2940CT-5.0 C618 +5V REG 0.1 R640 7.5MM C630+1 R619 S5V T L612 C629+ 5.6MH 2200 T 1 250 +I C623 220 250 195137 ÄRLÄV SRIVE ISA 680

195137 ÄRLÄV SRIVE

195137 ÄRLÄV SRIVE +21V STBY +5V -<ST0BY5V> --<5V>---+5V R633 B618 100 ISS133T --<33V>--≺ABL>-+200V +1000V +200V +135V 0.28047 J +9V 22 250v RGP10GPKG23 L806 # R836 C824 F - HV TO CRT 470, C518 B: 1 C517 B502 L502 470 RGP15GPKG23 3.3aH 25V RGP15GPKG23 LHL08 T T+ C514 C515 C514 C515 25V 38612v **■** 0.47 :FPRB 470° 500 B: +TO C BOARĐ FV **W** C520 + D503 L503 470 R6P 15GPKG23 3.3 HH 25V R6P 15GPKG23 LHL08 CN1401 L813 2.2eH 9 R826 1k 1/2W +135V NC GNÐ VM OUT +9V C819 0.068 250V ∓ ≹ R827 4.7k CN803 +135V GNĐ TAB (CONTACT) H15V PULSE
GND
GND
ROT COIL
GND
FBT +15V
GND
GND
GND
GND
V-OUT JW007 5MP JW120 10HH +15V 1 C810 T 2.24F 250V TO 02 BOAR0 CN1801 R821 220 AH 3 ±c812 T0.68 T400V C808 L805 0.1 T 6811 8208 8688 OTP16 ₹ R840 25C4927-01 H-OUT R817 1.2k 3V R816 1k 3W 1894 - 1894 - 1895 - 18 DY A W. - WW C814 T0.015 C816 | C818 | C818 | C818 | C816 | C816 | C818 | C8 C817 1000p 2kV R824 #1201 MTZJ-3.9B C813 1 0.047 T C815 1 82000 1 01201 0TC143TS MUTE SW CN1420 3P BLK S:MICRO R1213 2.2x GNÐ GNÐ GNÐ - C1215 C1200 T 61.207 T 61.207 CN1408 4P :S-MICRO R1212 3.9k GNÐ L OUT GNÐ R OUT

Oldua

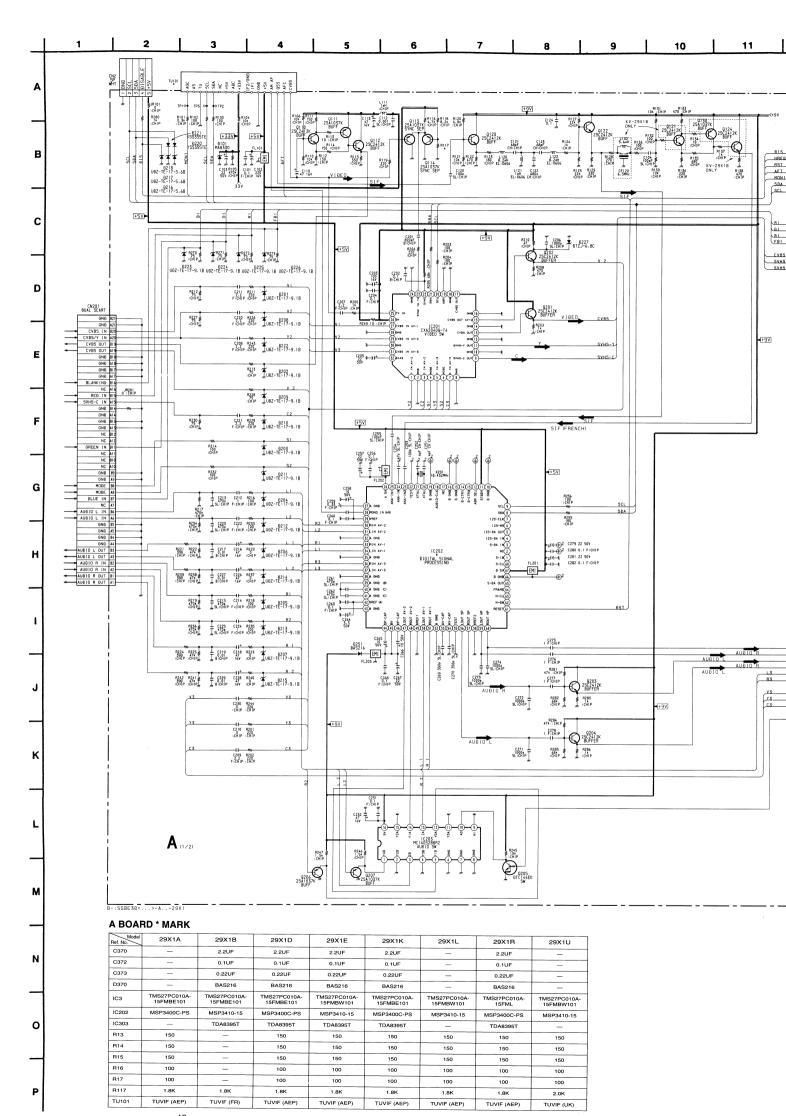
H1298 H1299 T 81822 T 81822 1 129 T 81822 T 81822 T 91823 T 91823

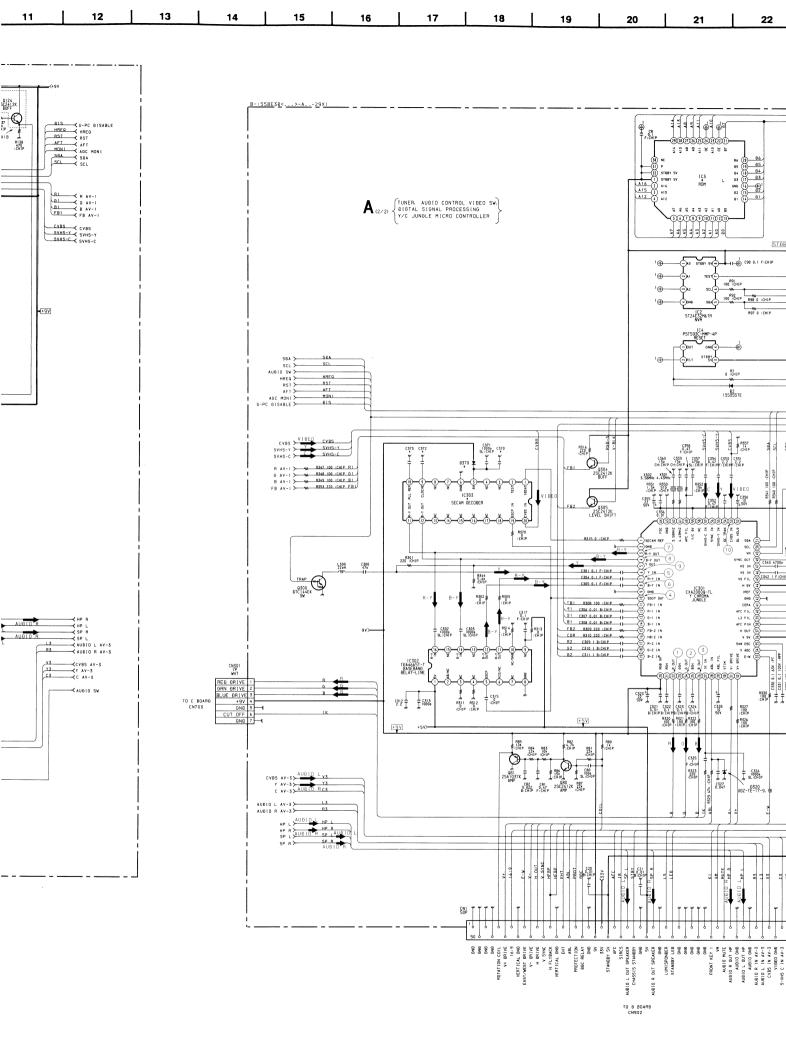
# D BOARD TRANSISTOR VOLTAGE TABLE

| Transistor Voltage Table |           |                |              |  |  |
|--------------------------|-----------|----------------|--------------|--|--|
| Ref No                   | B<br>Base | C<br>Collector | E<br>Emitter |  |  |
| Q501                     | -0.1      | 0.2            | -            |  |  |
| Q502                     | 0.1       | -5.8           | -            |  |  |
| Q503                     | -5.8      | -12.0          | -12.0        |  |  |
| Q602                     | 72.0      | 7.5            | 72.7         |  |  |
| Q603                     | 0         | 72.0           | -            |  |  |
| Q604                     | 0.7       | -              | -            |  |  |
| Q605                     | 605 0.5 - | -              | 0.3          |  |  |
| Q606                     | -         | -              | 12.0         |  |  |
| Q607                     | -         | 12.0           | -            |  |  |
| Q800                     | 0.2       | 3.1            | -            |  |  |
| Q801                     | 0.3       | 17.0           | -            |  |  |
| Q802                     | -0.2      | 143.3          | -            |  |  |
| Q803                     | -0.6      | 99.8           | -            |  |  |
| Q805                     | -         | 3.6            | -            |  |  |
| Q900                     | -         | 5.4            | -            |  |  |
| Q1200                    | 2.9       | 21.5           | 4.6          |  |  |
| Q1201                    | 3.4       | 5.0            | 3.0          |  |  |
| Q1202                    | 2.8       | -              | -            |  |  |

## **D BOARD IC VOLTAGE TABLE**

|        | IC Volta | ge Table    |  |  |
|--------|----------|-------------|--|--|
| Ref No | Pin No   | Voltage (V) |  |  |
|        | 1        | 1.5         |  |  |
|        | 2        | 15.0        |  |  |
|        | 3        | -12.3       |  |  |
| 10500  | 4        | -14.0       |  |  |
| IC500  | 5        | 0.1         |  |  |
|        | 6        | 15.2        |  |  |
|        | 7        | 1.4         |  |  |
|        | 1        | 170.0       |  |  |
|        | 2        | -62.4       |  |  |
|        | 3        | -62.6       |  |  |
|        | 4        | -62.2       |  |  |
| IC600  | 5        | -62.0       |  |  |
|        | 6        | -62.6       |  |  |
|        | 7        | -62.4       |  |  |
|        | 8        | -62.0       |  |  |
|        | 9        | -58.0       |  |  |
|        | 1        | 64.3        |  |  |
| IC601  | 2        | 63.0        |  |  |
| 10001  | 3        | -62.5       |  |  |
|        | 4        | -58.6       |  |  |
|        | 1        | 135.0       |  |  |
| IC602  | 2        | 63.2        |  |  |
|        | 3        | -0.1        |  |  |
|        | 3        | 0.9         |  |  |
|        | 5        | 1.5         |  |  |
| IC800  | 6        | 2.0         |  |  |
|        | 7        | 0.2         |  |  |
|        | 8        | 9.0         |  |  |
|        | 2        | 21.7        |  |  |
| IC1200 | 4        | 21.5        |  |  |
|        | 5        | -21.7       |  |  |
|        | 1        | 4.0         |  |  |
|        | 2        | 9.0         |  |  |
| IC1201 | 3        | 4.0         |  |  |
|        | 5        | 0.5         |  |  |
|        | 8        | 0.5         |  |  |





25Å1037K R12 470 R36 4.7\* :CHIP R37 4.7\* :CHIP R38 4.7\* :CHIP R16 \* CHIP Bt4 300 CH:CHIP 1€⊕1C2 22 50V 1€⊕1C1 0.1 F:CHIP SBAS2SOMCS-GEG MICRO-CONTROLLER CIR O. L. F.: CHI ¹@<del>⊢</del>⊢ 1@ R76 100 :CHIP A. SW R75 100 :CHIP IRAP R74 100 :CHIP V-BLK R73 100 :CHIP MUTE C10 479 CH:CHIP L10 6.8#H :CHIP C11 479 CH:CHIP C19 0.033 H VS HS 818 100 :CHIP W VS 819 100 :CHIP W SDA1 820 100 :CHIP W SCL1 821 100 :CHIP W STOBY +5V 972 100 :CHIP RGR-S 971 100 :CHIP HREQ 970 100 :CHIP WR 869 100 :CHIP WR R63 100 : CHIP DGC DGC
R62 100 : CHIP EN EN
R61 100 : CHIP RXB RXB
R60 100 : CHIP TXB TXB GIS 470aF SLICHIP ₹ R46 82k :CHIP ⊕ 11 100»F 5L:CHIP 844 6.8× R40.≢ 5.6× R42 6.8× R48 1M 1CHIP L C44 00001 0001 878 100 ≢ CHIP # #79 220 :CHIP 912 JUDZ-TE-17-5.6B C43 R47 #11 UBZ-TE-17-5.6B C45 FICHIP CVBS STOBY +5V 5 25g2412K RS0 4.7k iCHIP 25.224.12K 25.224.12K LEVEL-SHIFT 270 \$5.25 1.CHIP CHIP Ø. BTC144EK 25023112K R52 4.7k :CHIP R53 4.7k ICHIP C348 | R342 | 0.1 | Ik | F:CHIP | CHIP BTC144EK 2630 2541 377 2641 4700 4838 1.22 | CHIP 343 4700 4838 1.22 | CHIP 342 1 F | CHIP 8337 100 | CHIP R334 470 :CHIP +9V R328 | R346 | R318 \$2.2M | \$3.9k | \$39k :CHIP | :CHIP | :CHIP 2SC2412K C347 T 0.47 F:CHIP C335 # # # # 0.1 R324 R319 C319 B:CHIP 3.9k 22k 0.033 ICHIP ICHIP B:CHIP STBY +5V

24

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23

AUBIO L IN AV-3
CVBS IN AV-3
VIBEO GNB
S-VHS C IN AV-3
S-VHS Y IN AV-3

#### A (1/2) BOARD IC VOLTAGE TABLE

|        | IC Voltag | je Table    |
|--------|-----------|-------------|
| Ref No | Pin No    | Voltage (V) |
|        | 13        | 4.4         |
|        | 15        | 4.4         |
|        | 20        | 3.5         |
|        | 21        | 2.7         |
|        | 22        | 4.9         |
| IC201  | 23        | 4.4         |
|        | 24        | 0           |
|        | 25        | 4.4         |
|        | 26        | 8.8         |
|        | 32        | 4.4         |
|        | 4         | 2.8         |
|        | 6-7       | 0.1         |
|        | 8         | 3.0         |
|        | 9         | 3.6         |
|        | 11        | 4.7         |
|        | 13        | 4.7         |
|        | 20-21     | 2.4         |
|        | 23        | 0.2         |
| IC202  | 25        | 1.5         |
| 10202  | 26        | 4.8         |
|        | 28        | 3.8         |
|        | 29        | 2.6         |
|        | 39-42     | 3.8         |
|        | 44        | 7.1         |
|        | 45        | 8.0         |
|        | 46        | 7.1         |
|        | 47-48     | 3.8         |
|        | 53-54     | 3.8         |

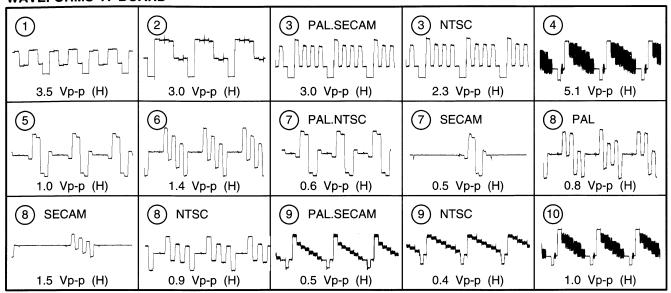
#### A (2/2) BOARD TRANSISTOR VOLTAGE TABLE

| Transistor Voltage Table |           |                |              |  |  |
|--------------------------|-----------|----------------|--------------|--|--|
| Ref No                   | B<br>Base | C<br>Collector | E<br>Emitter |  |  |
| Q1                       | 3.7       | 4.8            | 3.1          |  |  |
| Q4                       | 0.1       | 4.8            | -            |  |  |
| Q5                       | 0.7       | 4.8            | 4.0          |  |  |
| Q15                      | -         | 4.3            | -            |  |  |
| Q16                      | 4.3       | 0.2            | -            |  |  |
| Q17                      | 0.4       | 3.5            | -            |  |  |
| Q18                      | 3.5       | 0.7            | -            |  |  |
| Q80                      | 2.6       | 2.2            | -            |  |  |
| Q81                      | 2.4       | -              | 3.0          |  |  |
| Q304                     | -         | 4.8            | -            |  |  |
| Q305                     | -         | 4.8            | -            |  |  |
| Q330                     | 4.5       | -              | 5.1          |  |  |
| Q331                     | 6.3       | 8.8            | 5.7          |  |  |
| Q332                     | 3.1       | 8.8            | 2.5          |  |  |
| Q1001                    | 4.4       | -              | -            |  |  |

#### A (1/2) BOARD TRANSISTOR VOLTAGE TABLE

| INANSI | INANSISTOR VOLTAGE TABLE      |     |     |  |  |  |  |
|--------|-------------------------------|-----|-----|--|--|--|--|
| T      | Transistor Voltage Table      |     |     |  |  |  |  |
| Ref No | Ref No Base Collector Emitter |     |     |  |  |  |  |
| Q110   | 1.8                           | 8.2 | 1.2 |  |  |  |  |
| Q112   | 1.5                           | 8.8 | 0.8 |  |  |  |  |
| Q113   | 1.8                           | -   | -   |  |  |  |  |
| Q114   | 5.4                           | 6.0 |     |  |  |  |  |
| Q120   | 84.3                          | 8.8 | 3.7 |  |  |  |  |
| Q121   | 1.5                           | 5.4 | 0.9 |  |  |  |  |
| Q122   | 5.4                           | 8.8 | 4.7 |  |  |  |  |
| Q124   |                               | 8.8 | -   |  |  |  |  |
| Q201   | 4.4                           | 8.8 | 3.7 |  |  |  |  |
| Q202   | 4.4                           | 8.8 | 3.7 |  |  |  |  |

#### **WAVEFORMS A BOARD**

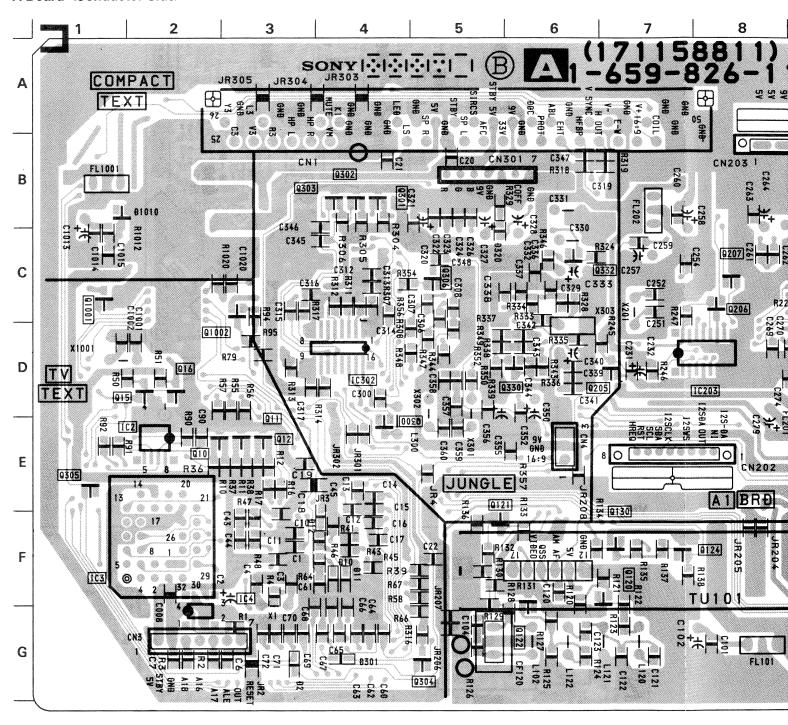


A (2/2) BOARD IC VOLTAGE TABLE

|        |        |             |        | IC Volta | ge Table    |        |        | · · · · · · · · · · · · · · · · · · · |
|--------|--------|-------------|--------|----------|-------------|--------|--------|---------------------------------------|
| Ref No | Pin No | Voltage (V) | Ref No | Pin No   | Voltage (V) | Ref No | Pin No | Voltage (V)                           |
|        | 2      | 3.6         |        | 5        | 3.6         | 10001  | 61     | 5.0                                   |
|        | 3-4    | 4.8         | İ      | 6        | 5.0         | IC301  | 62     | 7.6                                   |
|        | 5      | 0.5         | İ      | 7-8      | 5.4         |        | 1      | 4.8                                   |
|        | 7      | 4.8         |        | 10       | 0.6         | 1      | 5      | 0.7                                   |
|        | 9      | 4.8         | İ      | 12-14    | 5.4         | 10000  | 9      | 4.8                                   |
|        | 11     | 2.4         |        | 16       | 4.0         | IC302  | 11-12  | 3.0                                   |
|        | 13     | 4.8         | İ      | 17-19    | 5.4         | 1      | 14     | 1.3                                   |
|        | 14-15  | 2.3         |        | 20       | 8.8         |        | 16     | 1.3                                   |
|        | 16-17  | 4.8         | •      | 22-23    | 2.2         |        | 5      | 8.0                                   |
|        | 48     | 4.0         | Ì      | 24       | 2.0         |        | 3.2    | 10                                    |
|        | 51     | 4.8         |        | 25       | 2.4         | 1      | 11     | 5.6                                   |
|        | 52-53  | 2.4         |        | 26       | 2.0         | IC303  | 0      | 19                                    |
|        | 54     | 0.7         |        | 27       | 4.0         | 1      | 20     | 3.7                                   |
|        | 55     | 0.2         | İ      | 28       | 6.6         |        | 4      | 0.2                                   |
|        | 56-57  | 4.8         | IC301  | 29       | 8.8         | 1      | 5      | 0.7                                   |
| IC1    | 58     | 2.8         |        | 31-33    | 3.0         |        | 4      | 0.2                                   |
|        | 59     | 3.5         |        | 34       | 4.0         |        | 5      | 0.7                                   |
|        | 60     | 2.4         |        | 35       | 4.6         |        | 6      | 1.7                                   |
|        | 62     | 0.7         |        | 36       | 8.8         |        | 7      | 1.8                                   |
|        | 63     | 4.4         |        | 37       | 3.1         |        | 10     | 0.4                                   |
|        | 65     | 4.8         |        | 38       | 3.4         | 1      | 11-12  | 4.8                                   |
|        | 66     | 2.1         |        | 39       | 5.3         | 1      | 16     | 4.8                                   |
|        | 67     | 2.0         |        | 40       | 4.2         | 1      | 17     | 0                                     |
|        | 69-71  | 2.3         |        | 41       | 2.3         | 1      | 21     | 4.8                                   |
|        | 72     | 4.8         |        | 43       | 1.7         | IC1001 | 23     | 3.0                                   |
|        | 73     | 1.5         |        | 44       | 8.8         | 1      | 25     | 4.8                                   |
|        | 74     | 1.2         |        | 45       | 2.5         | 1      | 56     | 0                                     |
|        | 75-77  | 4.8         |        | 46       | 3.9         | 1      | 61     | 1.3                                   |
|        | 79     | 0.2         |        | 47       | 3.0         | 1      | 62-63  | 1.4                                   |
|        | 80     | 4.8         |        | 48       | 4.4         | 1      | 64     | 0                                     |
| IC2    | 5-8    | 4.8         |        | 49       | 6.3         | 1      | 66     | 4.6                                   |
|        | 1      | 4.8         |        | 50-51    | 0.1         | 1      | 67     | 4.7                                   |
| IC3    | 31-32  | 4.8         |        | 53       | 3.9         | 1      | 68     | 4.0                                   |
|        | 1      | 4.8         |        | 54       | 5.0         |        | 1      |                                       |
| IC4    | 3      | 4.8         | l      | 55-56    | 4.2         | 1      |        |                                       |
|        | 1      | 1.5         |        | 58-59    | 8.8         | 1      |        |                                       |
| IC301  | 3-4    | 5.6         |        | 60       | 5.3         | 1      |        |                                       |

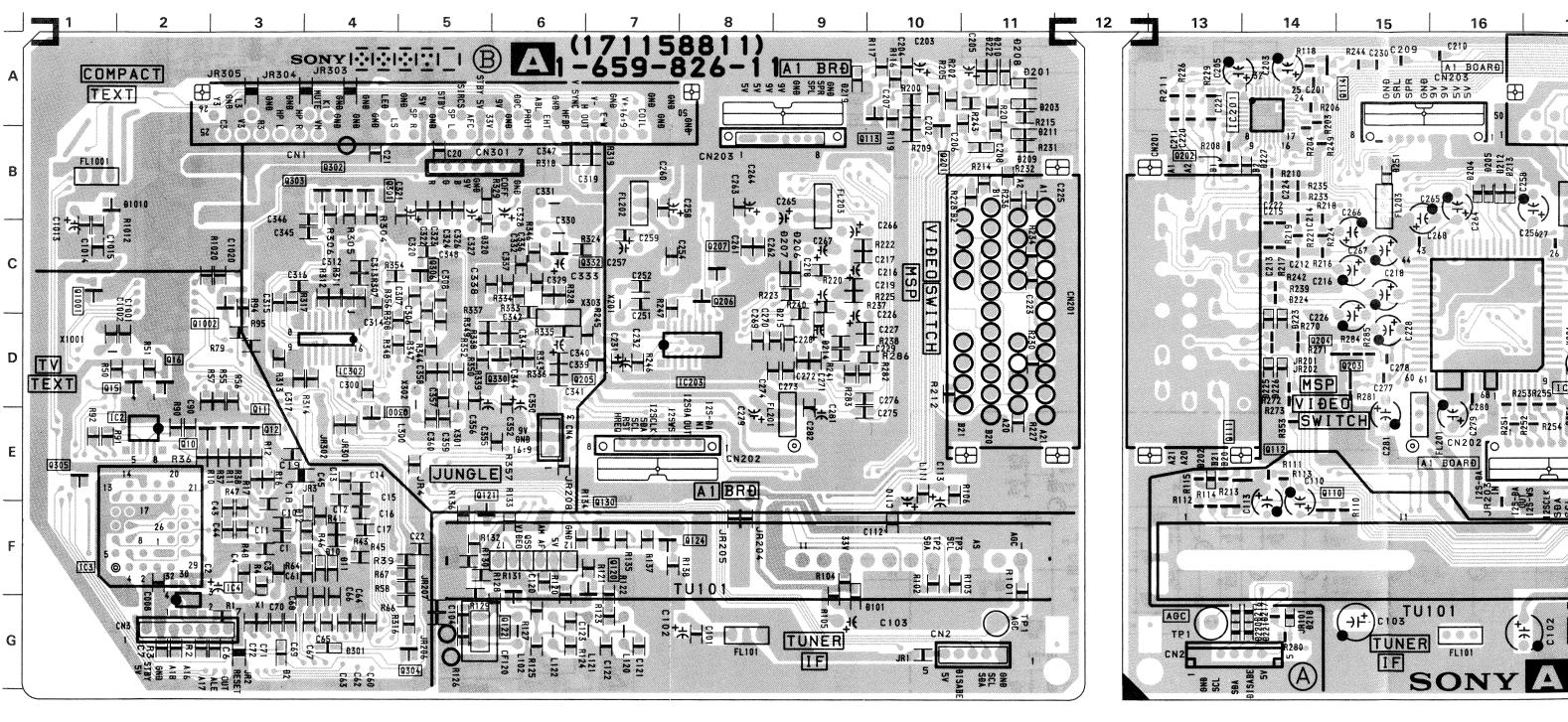


#### A Board < Conductor Side>

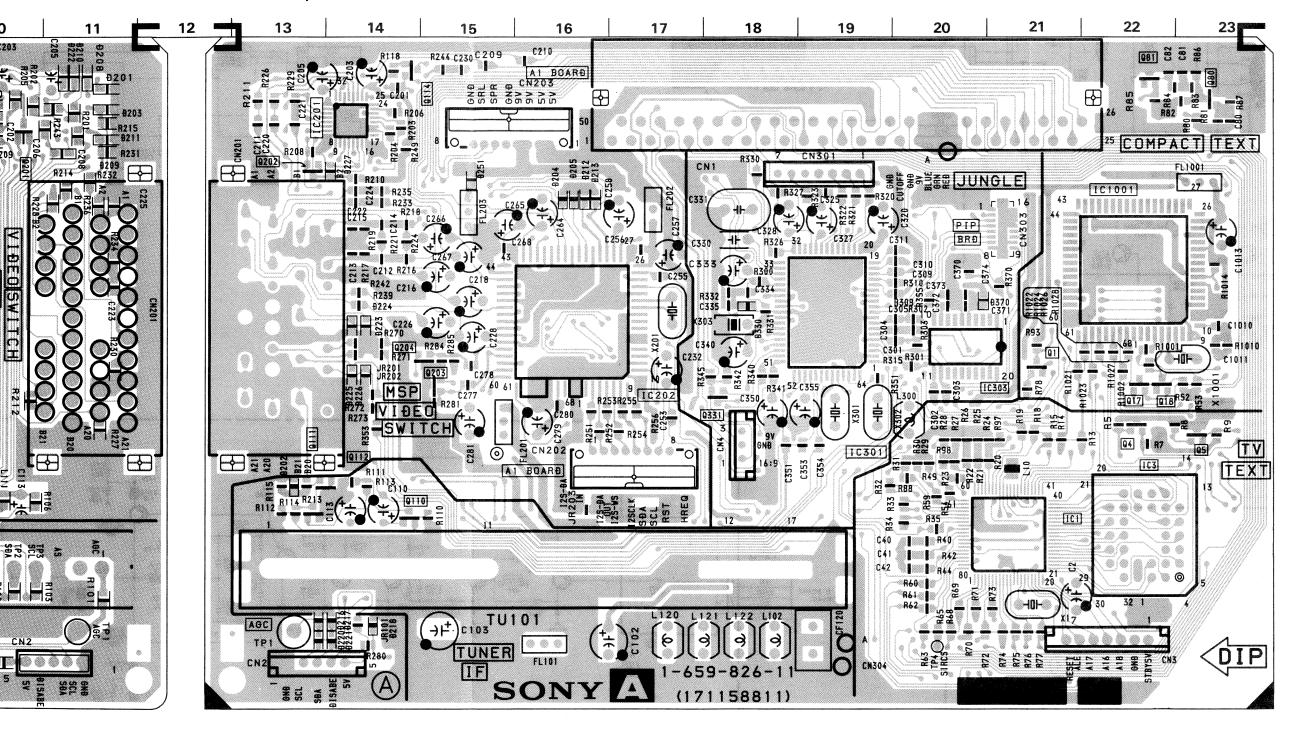


# A Board < Conductor Side>

#### A Board < Component Side>

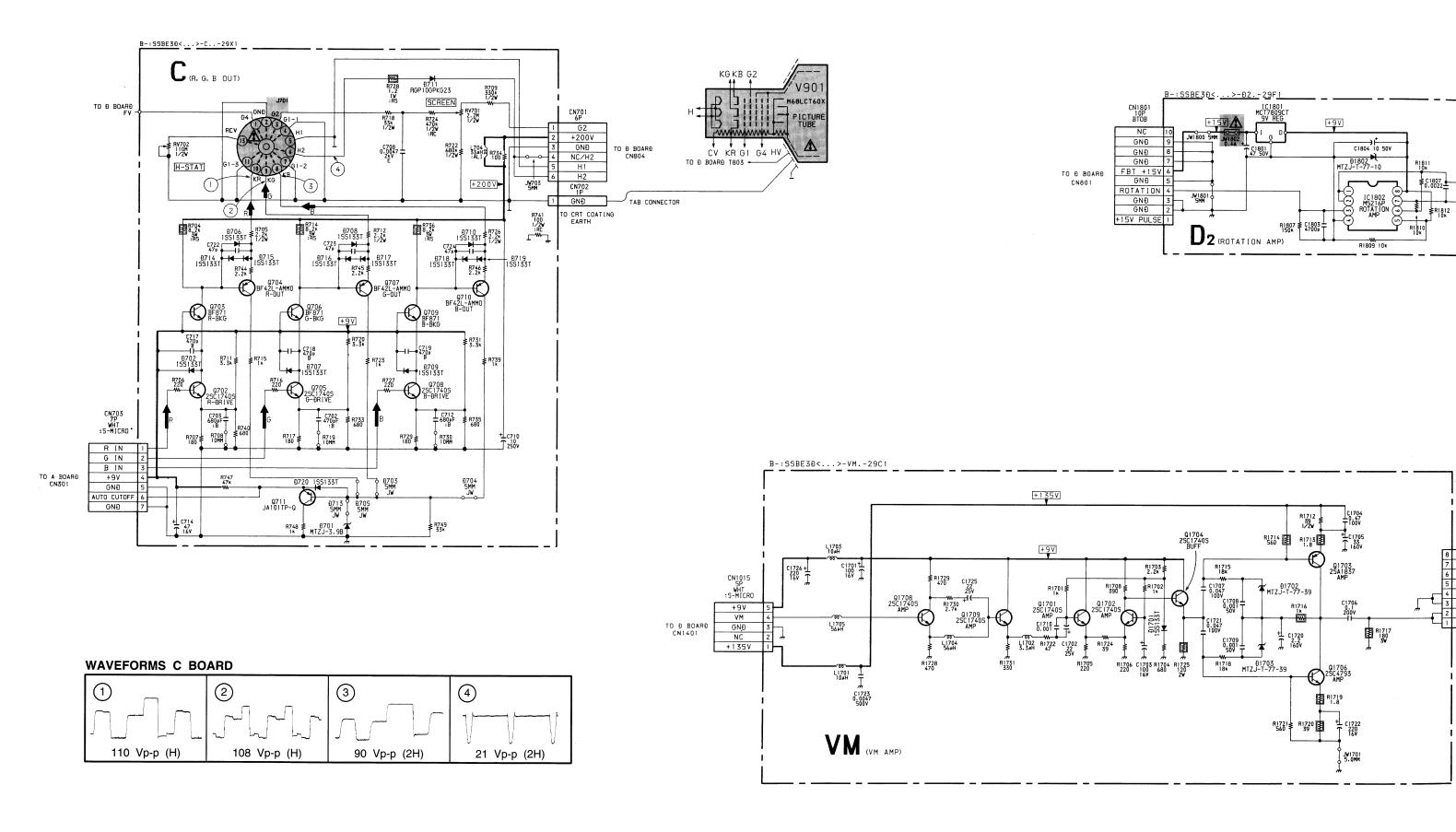


#### A Board < Component Side>

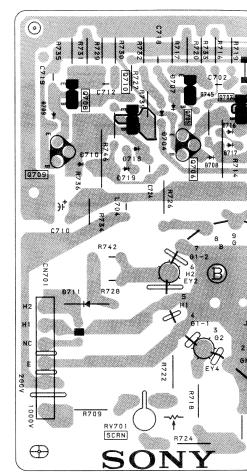


#### A BOARD

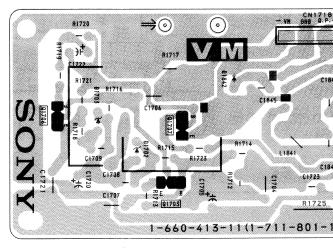
| A BOARD |      |        |      |  |  |  |  |
|---------|------|--------|------|--|--|--|--|
| IC      |      | Q305   | E-1  |  |  |  |  |
| IC1     | F-21 | Q306   | C-5  |  |  |  |  |
| IC2     | E-2  | Q330   | D-6  |  |  |  |  |
| IC3     | F-2  | Q331   | D-18 |  |  |  |  |
| IC4     | G-2  | Q332   | C-6  |  |  |  |  |
| IC201   | A-14 | Q1002  | C-3  |  |  |  |  |
| IC202   | C-16 | DIOD   | E    |  |  |  |  |
| IC203   | D-8  | D2     | G-3  |  |  |  |  |
| IC301   | C-19 | D10    | F-10 |  |  |  |  |
| IC302   | D-4  | D11    | F-10 |  |  |  |  |
| IC303   | D-21 | D12    | F-4  |  |  |  |  |
| TRANSIS | STOR | D101   | F-9  |  |  |  |  |
| Q1      | D-21 | D201   | A-11 |  |  |  |  |
| Q4      | E-22 | D202   | E-13 |  |  |  |  |
| Q5      | E-23 | D203   | A-11 |  |  |  |  |
| Q10     | E-2  | D204   | B-16 |  |  |  |  |
| Q11     | E-3  | D205   | B-16 |  |  |  |  |
| Q15     | D-2  | D206   | C-9  |  |  |  |  |
| Q16     | D-2  | D207   | C-9  |  |  |  |  |
| Q17     | D-22 | D208   | A-11 |  |  |  |  |
| Q18     | D-23 | D209   | B-11 |  |  |  |  |
| Q80     | A-23 | D210   | A-11 |  |  |  |  |
| Q81     | A-22 | D211   | B-11 |  |  |  |  |
| Q110    | F-14 | D212   | B-16 |  |  |  |  |
| Q111    | E-14 | D213   | B-16 |  |  |  |  |
| Q112    | E-14 | D214   | D-9  |  |  |  |  |
| Q113    | A-10 | D215   | D-9  |  |  |  |  |
| Q114    | A-14 | D216 . | G-14 |  |  |  |  |
| Q120    | F-7  | D217   | G-14 |  |  |  |  |
| Q121    | F-5  | D218   | G-14 |  |  |  |  |
| Q122    | F-6  | D220   | G-14 |  |  |  |  |
| Q124    | F-7  | D221   | D-14 |  |  |  |  |
| Q130    | F-7  | D222   | D-14 |  |  |  |  |
| Q201    | B-10 | D223   | D-14 |  |  |  |  |
| Q202    | B-13 | D224   | D-14 |  |  |  |  |
| Q203    | D-15 | D225   | D-14 |  |  |  |  |
| Q204    | D-15 | D226   | D-14 |  |  |  |  |
| Q205    | D-7  | D227   | B14  |  |  |  |  |
| Q206    | C-8  | D251   | B-15 |  |  |  |  |
| Q207    | C-8  | D320   | C-5  |  |  |  |  |
| Q300    | E-4  | D370   | C-21 |  |  |  |  |
| Q304    | G-5  |        |      |  |  |  |  |

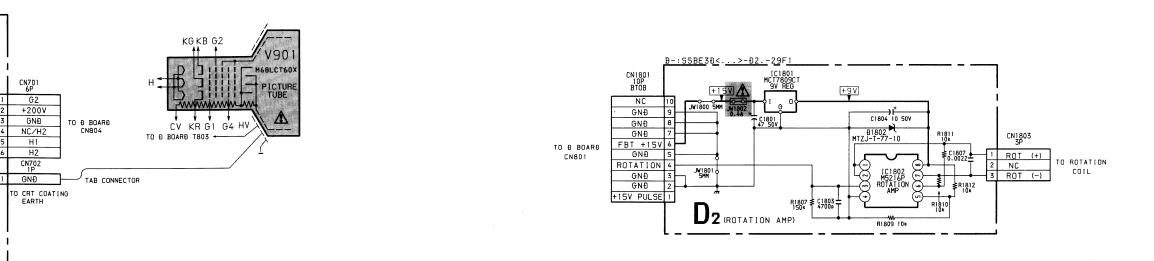


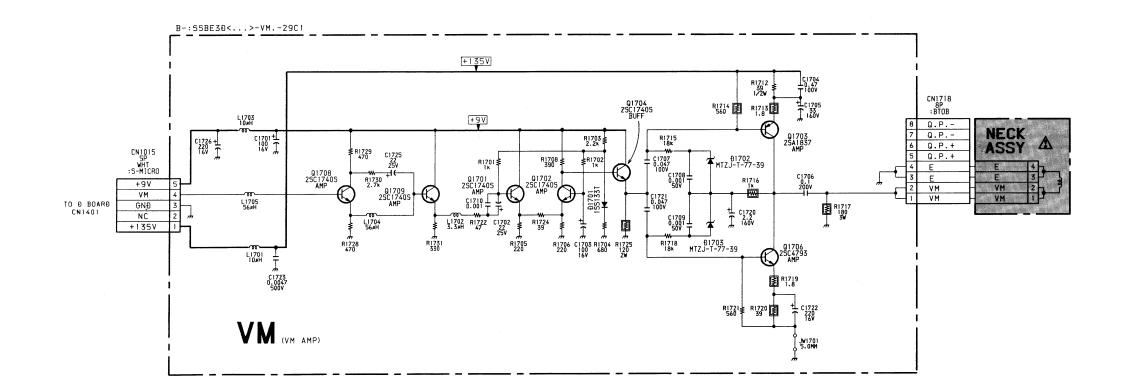




## VM Board

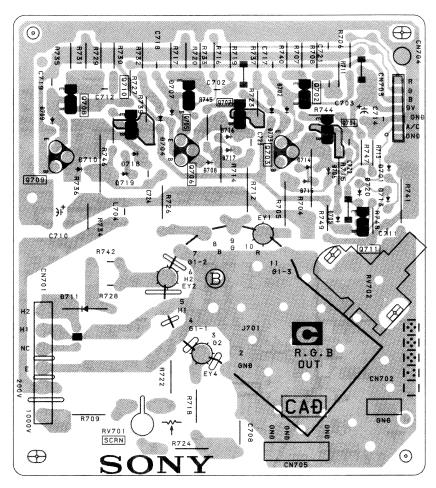




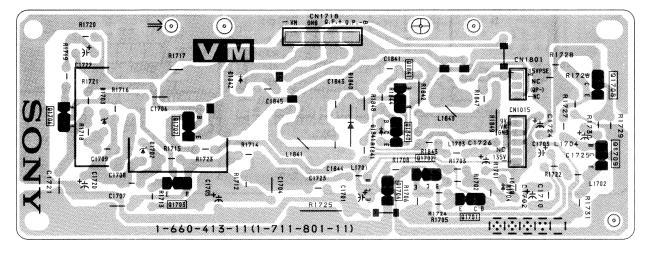


D2 Board

## C Board



# VM Board



## C BOARD TRANSISTOR VOLTAGE TABLE

| Т                                   | Transistor Voltage Table |       |       |  |  |  |  |
|-------------------------------------|--------------------------|-------|-------|--|--|--|--|
| Ref No B C E Base Collector Emitter |                          |       |       |  |  |  |  |
| Q702                                | 2.0                      | 11.4  | 1.4   |  |  |  |  |
| Q703                                | 12.0                     | 168.3 | 11.4  |  |  |  |  |
| Q704                                | 168.3                    | 6.0   | 163.5 |  |  |  |  |
| Q705                                | 1.7                      | 11.4  | 1.2   |  |  |  |  |
| Q706                                | 12.0                     | 178.8 | 11.4  |  |  |  |  |
| Q707 178.2 6.2 173.8                |                          |       |       |  |  |  |  |
| Q708                                | 2.0                      | 11.4  | 1.4   |  |  |  |  |
| Q709                                | 12.0                     | 168.3 | 11.4  |  |  |  |  |
| Q710                                | 168.0                    | 6.4   | 160.0 |  |  |  |  |

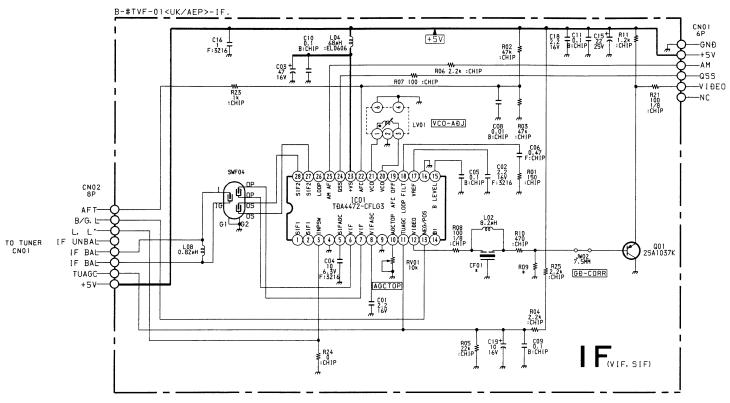
#### VM BOARD TRANSISTOR VOLTAGE TABLE

| Transistor Voltage Table      |       |      |       |  |  |  |  |
|-------------------------------|-------|------|-------|--|--|--|--|
| Ref No Base Collector Emitter |       |      |       |  |  |  |  |
| Q1701                         | 2.5   | 8.8  | 1.8   |  |  |  |  |
| Q1702                         | 2.5   | 5.5  | 1.8   |  |  |  |  |
| Q1703                         | 134.3 | 71.8 | 134.8 |  |  |  |  |
| Q1704                         | 5.5   | 8.8  | 4.8   |  |  |  |  |
| Q1706                         | 1.0   | 71.8 | 0.4   |  |  |  |  |
| Q1707                         | 0.7   | -    | -     |  |  |  |  |
| Q1708                         | 2.9   | 6.6  | 2.2   |  |  |  |  |
| Q1709                         | 2.2   | 8.8  | 1.5   |  |  |  |  |
| Q1840                         | 0.6   | -    | -     |  |  |  |  |

### D2 BOARD IC VOLTAGE TABLE

| IC Voltage Table          |     |     |  |  |  |
|---------------------------|-----|-----|--|--|--|
| Ref No Pin No Voltage (V) |     |     |  |  |  |
|                           | 1-2 | 2.8 |  |  |  |
|                           | 3   | 3.0 |  |  |  |
| IC1802                    | 5-6 | 4.4 |  |  |  |
| 101002                    | 7   | 6.2 |  |  |  |
|                           | 8   | 9.0 |  |  |  |
|                           |     |     |  |  |  |

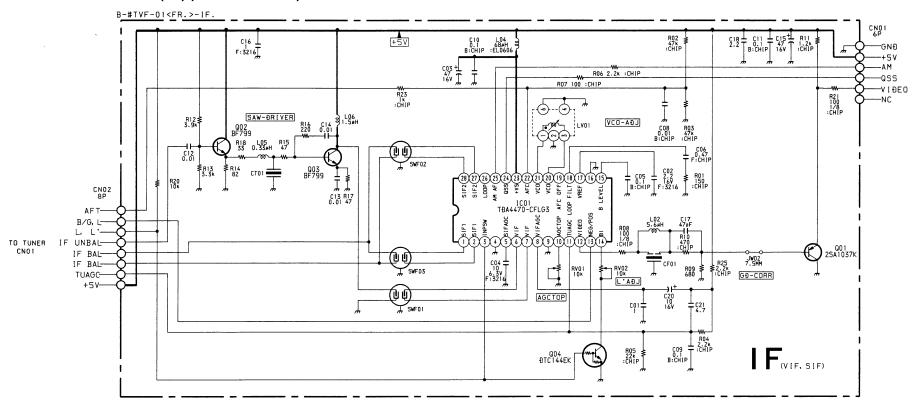
# TUVIF (AEP) (KV-29X1A, 29X1D, 29X1E, 29X1K, 29X1L and 29X1R ONLY) TUVIF (UK) (KV-29X1U ONLY)



#### IF Board

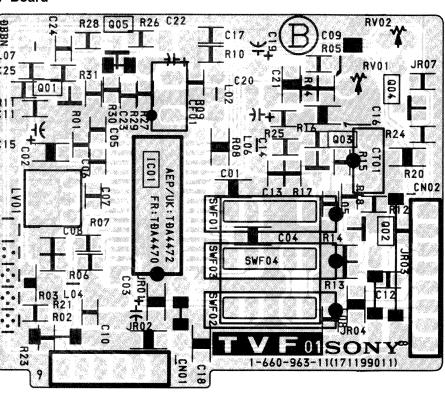
| Model<br>Ref. No. | 29X1A  | 29X1D  | 29X1E  | 29X1K  | 29X1L  | 29X1R  | 29X1U  |
|-------------------|--------|--------|--------|--------|--------|--------|--------|
| CF01              | 5.5MHz | 5.5MHz | 5.5MHz | 5.5MHz | 5.5MHz | 5.5MHz | 6.0MHz |
| R09               | 680MF  | 680MF  | 680MF  | 680MF  | 680MF  | 680MF  | 1K     |

### TUVIF (FR) (KV-29X1B ONLY)

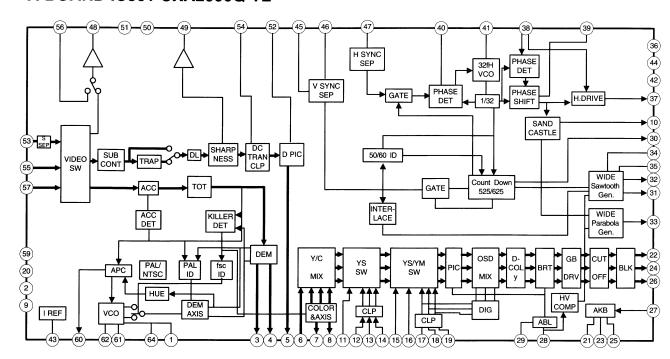




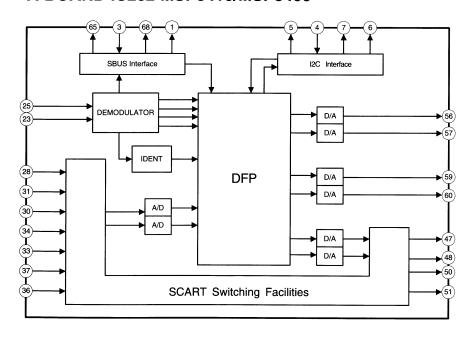
### IF Board



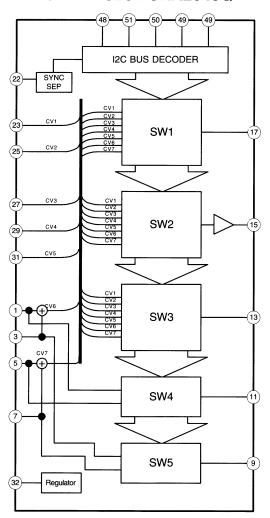
### A BOARD IC301 CXA2000Q-TL



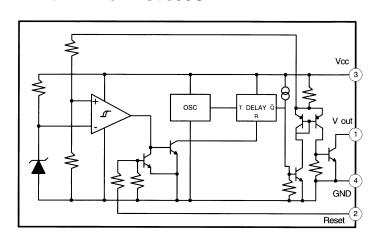
## A BOARD IC202 MSP3410/MSP3400



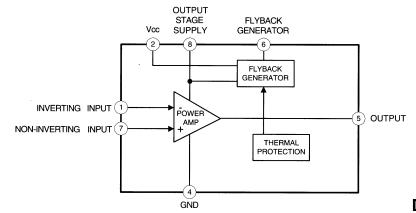
## A BOARD IC201 CXA2040Q



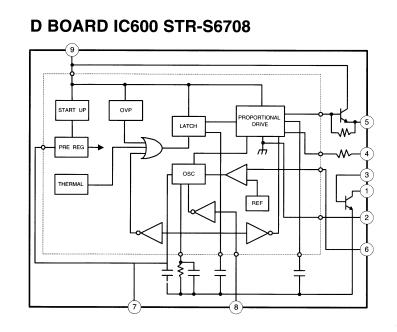
### A BOARD IC4 PST593C

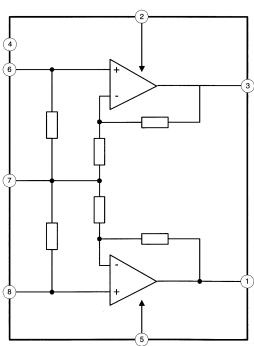


## D BOARD IC500 STV9379



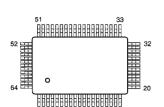
### D BOARD IC1200 TDA7264





#### 5-4. SEMICONDUCTORS

CXA2000Q-TL



(TOP VIEW)

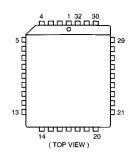
MC14052BDR2



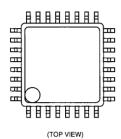
ST24E32M6TR



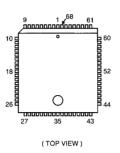
TMS27PC010A-15FML



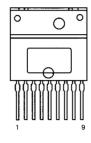
CXA2040Q-T4



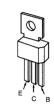
MSP3400C-PS MSP3410-15



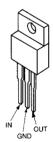
STR-S6708



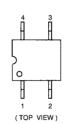
BF871-127



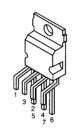
L4941BV



PST593C-MMP-4P



STV9379



BF421L-AMMO JA101TP-Q 2SA733-K 2SA933AS 2SA933S 2SA1091-O 2SC3502-F

2SC2808STP-R

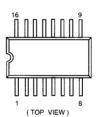




SBX1790-51



TDA4665T-T



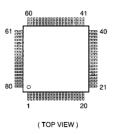
DTA144ES DTC114ES DTC143TS



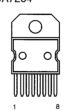
LM393P M5216P TDA2822M µPC393C



SDA5250M-GEG



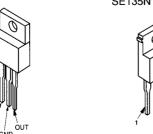
TDA7264



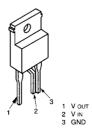
DTC144ES 2SC1740S-RT



LM2940CT-5.0 LM2940CT LM2940T-9.0 MCT7809CT µPC2405HF



SE135N



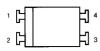
TDA8395T



DTC144EK 2SA1037K 2SA1162-G 2SC2412K



#### TLP721(D4-)



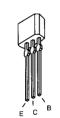
AU-01Z-V1 GP08D EG-1Z-V1 RGP02 EGP20G RGP10GPKG23 EL1Z RGP15GPKG23 EM1-V1 RU3YX EU-1-V1 RU4AM-T3 EU2-V1 RU4DS

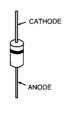
FML-G12S

RD3.9ESB2 MTZJ-3.6A RD5.1ESB2 MTZJ-3.9B RD5.6ESB2 MTZJ-5.1B RD6.2ESB2 MTZJ-5.6B RD6.8ESB2 MTZJ-6.2B RD7.5ESB2 MTZJ-6.8B MTZJ-7.5C RD10ESB2 RD39ES-B2 MTZJ-9.1 MTZJ-T-77-9.1A

1SS133T-77

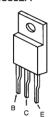
#### 2SC2785-HFE





CATHODE

2SA1667 2SA1837 2SC3852A

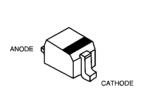


BAS216 MA8330 DTZ6.8C 1SS355 DTZ9.1 UDZ-TE-17-5.6B DTZ33B UDZ-TE-17-9.1B

SLA-570KT3F

MTZJ-10

MTZJ-39

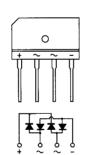




2SC2688-LK



#### D4SB60L



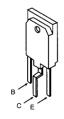
2SC4793



FMS-3FU



2SC4927-01



# SECTION 6 EXPLODED VIEWS

#### NOTE:

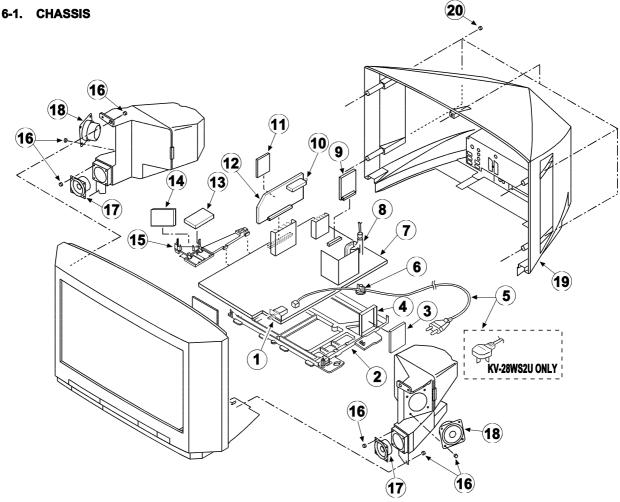
- Items with no part number and no description are not stocked because they
  are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and marked  $\hat{\Lambda}$  are critical for safety.

Replace only with the part number specified.

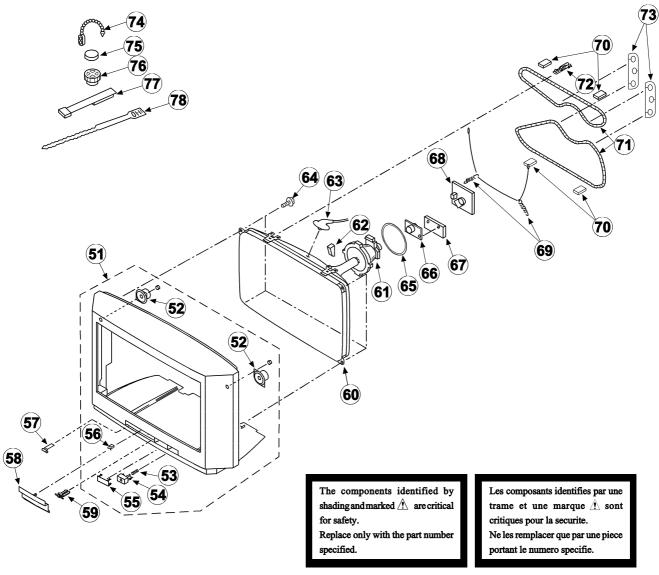
Les composants identifies par une trame et une marque  $\hat{\Lambda}$  sont critiques pour la securite.

Ne les remplacer que par une piece portant le numero specifie.



| REF NO | PART NO               | DESCRIPTION REMAR                | RK REF NO | PART NO       | DESCRIPTION   | REMARK |
|--------|-----------------------|----------------------------------|-----------|---------------|---|--------|
| 1      | <b>↑</b> 1-571-433-21 | SWITCH, PUSH (AC POWER)          | 11        | *A-1630-529-A | A1 BOARD, COMPLETE  |        |
| 2      | *4-203-315-01         | BRACKET, MAIN                    | 12        | *A-1632-516-A | A BOARD, COMPLETE (KV-28W                                 | S2B)   |
| 3      | *A-1640-235-A         | D3 BOARD, COMPLETE               |           | *A-1632-471-A | A BOARD, COMPLETE (KV-28W                                 | S2D)   |
| 4      | *4-203-404-01         | BRACKET, D3                      |           | *A-1632-517-A | A BOARD, COMPLETE (KV-28W                                 | S2E)   |
| 5      | <b>1-751-680-11</b>   | CORD, POWER (WITH NOISE FILTER)  |           | *A-1632-529-A | A BOARD, COMPLETE (KV-28W                                 | S2K)   |
|        | <u></u>               | 2.5A/250V (KV-28WS2B/28WS2D/28WS | (2度)      | *A-1632-530-A | A BOARD, COMPLETE (KV-28W                                 | 52R)   |
|        | 1-690-270-21          |                                  | <b></b> / | *A-1632-515-A |   |        |
|        | <u></u> - *** - ***   | 2.5A/250V (KV-28WS2K/28WS        | (2R) 13   | *A-1651-088-A | J BOARD, COMPLETE   | ,      |
|        | <b>1-776-204-11</b>   | CORD, POWER (FILTER)             | 14        | *A-1649-018-A | K1 BOARD, COMPLETE  |        |
|        |                       | 3.0A/250V (KV-28WS               |           | *4-203-537-01 | BRACKET, J-K-T  |        |
| 6      | *4-202-531-01         | AC CORD LOCK (SC)                | 16        | 4-039-355-11  | SCREW(4X12), (+) BV TAPPI                                 | NIG    |
| 7      | *A-1642-190-A         | D BOARD, COMPLETE                | 17        | 1-505-154-11  | SPEAKER (6.5CM)   |        |
| 8      | 1-453-169-11          |                                  | (A2) 18   | 1-505-155-11  | SPEAKER (10CM)  |        |
| 9      | *A-1640-214-A         | D2 BOARD, COMPLETE               | 19        | 4-203-543-01  | COVER, REAR   |        |
| 10     | 1-693-340-11          | TUNER/VIF (FR) (KV-28WS2B)       | 20        | 4-039-358-01  | SCREW (4X16), (+) BV TAPP                                 | ING    |
|        | 1-693-338-11          | TUNER/VIF (AEP)                  |           |               | 201111 (11110), (1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1 |        |
|        | 1 175 550 11          | (KV-28WS2D/28WS2E/28WS2K/28WS    | 2R)       |               |   |        |
|        | 1-693-339-11          | TUNER/VIF (UK) (KV-28WS2U)       |           |               |   |        |

#### 6-2. PICTURE TUBE



| REF NO | PART NO      | DESCRIPTION REM                   | ARK REF NO | PART NO       | DESCRIPTION                  | REMARK |
|--------|--------------|-----------------------------------|------------|---------------|------------------------------|--------|
| 51     | A-1603-045-A | BEZNET ASSY 52-                   | 67         | *A-1644-070-A | VM BOARD, COMPLETE           |        |
| 52     | 1-504-418-21 | SPEAKER (5CM)                     | 68         | *A-1638-079-A | C BOARD, COMPLETE            |        |
| 53     | 4-202-964-01 | SPRING                            | 69         | 4-369-318-31  | SPRING, TENSION              |        |
| 54     | 4-203-540-01 | BUTTON, POWER                     | 70         | *4-203-390-01 | CUSHION, DGC                 |        |
| 55     | 4-203-539-01 | WINDOW ORNAMENTAL                 | <b>71</b>  | 1-411-893-11  | COIL DEGAUSSING              |        |
| 56     | 4-047-464-01 | CATCHER PUSH                      | 72         | 4-202-463-01  | CLIP, DGC (25°)              |        |
| 57     | 4-045-250-01 | DAMPER                            | 73         | *4-050-252-01 | SPACER, DGC                  |        |
| 58     | 4-203-542-01 | DOOR, CONTROL                     | 74         | 4-308-870-00  | CLIP, LEAD WIRE              |        |
| 59     | 4-202-555-01 | SHAFT, DOOR                       | 75         | 1-452-032-00  | MAGNET, DISK; 10MM Ø         |        |
| 60 1   | 8-737-763-05 | PICTURE TUBE (SD-284T) (W66LGY011 | LX) 76     | 1-452-094-00  | MAGNET, ROTATABLE DISK; 15MM | Ø      |
| 61     | 8-451-434-21 | DEFLECTION YOKE (Y28GIA-B)        | 77         | X-4387-214-1  | PERMALLOY ASSY, CORRECTION   |        |
| 62     | 3-704-495-01 | SPACER, DY                        | 78         | 3-701-007-00  | BAND, BINDING                |        |
| 63     | 1-540-006-22 | CAP ASSY, HIGH-VOLTAGE            |            |               | ,                            |        |
| 64     | 4-036-188-01 | SCREW (M), PT                     |            |               |                              |        |
| 65     | 1-452-724-22 | COIL, NA ROTATION (RT-165)        |            |               |                              |        |
| 66 1   | 8-453-005-61 | NECK ASSY PICTURE TUBE (NA297-M6) |            |               |                              |        |

# SECTION 7 ELECTRICAL PARTS LIST

The components identified by shading and marked  $\hat{x}$  are critical for safety. Replace only with the part number specified.

Les composants identifies par une trame et une marque  $\triangle$  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

• Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• All variable and adjustable resistors

When indicating parts by reference number, please include the board name.

CAPACITORS

COILS

MF:mF, PF: mmF

MMH: mH,μH: mH

#### RESISTORS

- All resistors are in ohms
- F: nonflammable



| REF.NO.        | PART NO.                     | DESCRIPTION                                    |            | REMARK      | REF.NO.        | PART NO.                     | DESCRIPTIO                 | N             | REMAI                | RK |
|----------------|------------------------------|--|------------|-------------|----------------|------------------------------|----------------------------|---------------|----------------------|----|
|                | *A-1630-529-A                | A1 BOARD, COMPLETE                             |            |             |                | < DIC                        | DE >                       |               |                      |    |
|                | < CAF                        | PACITOR >                                      |            |             | D1201          | 8-719-988-62                 | DIODE 188355               |               |                      |    |
|                |                              |  |            |             |                | < IC                         | >                          |               |                      |    |
| C1201<br>C1202 | 1-164-695-11                 | CERAMIC CHIP 0.0022MF<br>CERAMIC CHIP 0.1MF    | 5%         | 50V<br>25V  | IC1201         | 9_759_377_62                 | IC DSP56004-E              | .T66D2        |                      |    |
| C1203          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V         | IC1202         | 8-759-349-93                 | IC KM62256CLG              |               |                      |    |
| C1204          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V         | IC1203         | 8-759-384-64                 | IC TDA1387T/E              | 1/T3          |                      |    |
| C1205          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25 <b>V</b> | IC1204         | 8-759-384-64                 | IC TDA1387T/N              | 1/ <b>T</b> 3 |                      |    |
| C1206          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V         | IC1205         | 8-759-387-76                 | IC TL072CDR                |               |                      |    |
| C1207          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V         | IC1206         | 8-759-387-76                 | IC TL072CDR                |               |                      |    |
| C1208          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V         | IC1207         |                              | IC L78L05ACZ               |               |                      |    |
| C1209          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V         |                |                              |                            |               |                      |    |
| C1210          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V         |                | < COI                        | IL >                       |               |                      |    |
| C1211          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V         | L1204          | 1-410-989-11                 | INDUCTOR CHIE              | 0.470         | E                    |    |
| C1212          |                              | ELECT 100MF                                    | 20%        | 16V         | L1205          | 1-410-989-11                 | INDUCTOR CHIE              |               |                      |    |
| C1215          | 1-126-967-11                 |  | 20%        | 16V         | L1206          | 1-410-989-11                 | INDUCTOR CHIE              |               |                      |    |
| C1216<br>C1217 | 1-163-038-00<br>1-163-038-00 | CERAMIC CHIP 0.1MF<br>CERAMIC CHIP 0.1MF       |            | 25V<br>25V  | L1207<br>L1208 | 1-410-989-11<br>1-410-989-11 | INDUCTOR CHIE              |               |                      |    |
| CIZI           | 1-103-030-00                 | CERAMIC CHIP V.IMP                             |            | 234         | TITEVO         | 1-410-303-11                 | INDUCTOR CHIE              | 7 0.2/0       | 1                    |    |
| C1218          | 1-126-964-11                 |  | 20%        | 50V         | L1209          | 1-410-989-11                 |                            |               |                      |    |
| C1219          | 1-126-967-11                 | ELECT 47MF                                     | 20%        | 16V         | L1210          | 1-410-989-11                 | INDUCTOR CHIE              |               |                      |    |
| C1220<br>C1221 | 1-163-145-00<br>1-163-145-00 | CERAMIC CHIP 0.0015MF<br>CERAMIC CHIP 0.0015MF | 5%<br>5%   | 50V<br>50V  | L1211<br>L1212 | 1-410-989-11<br>1-410-989-11 | INDUCTOR CHIE              |               |                      |    |
| C1222          | 1-163-145-00                 | CERAMIC CHIP 0.1MF                             | 20         | 25V         | L1213          | 1-410-989-11                 | INDUCTOR CHIE              |               |                      |    |
| V              |                              | VIIII VIII                                     |            |             |                |                              |                            |               | •                    |    |
| C1223          | 1-126-967-11                 |  | 20%        | 16V         | L1220          | 1-410-989-11                 |                            |               |                      |    |
| C1224<br>C1225 | 1-126-967-11<br>1-163-038-00 | ELECT 47MF<br>CERAMIC CHIP 0.1MF               | 20%        | 16V<br>25V  | L1221          | 1-410-989-11                 | INDUCTOR CHIE              | 0.470         | i                    |    |
| C1225          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V<br>25V  |                | < TRA                        | NSISTOR >                  |               |                      |    |
| C1227          | 1-126-964-11                 |  | 20%        | 50V         |                | -                            |                            |               |                      |    |
|                |                              |  |            |             | Q1201          | 8-729-902-99                 | TRANSISTOR DI              | C114TK        |                      |    |
| C1228<br>C1229 | 1-163-145-00<br>1-163-145-00 | CERAMIC CHIP 0.0015MF<br>CERAMIC CHIP 0.0015MF | 5%<br>5%   | 50V<br>50V  |                | a DWG                        | SISTOR >                   |               |                      |    |
| C1229          | 1-163-145-00                 | CERAMIC CHIP 0.0015MF                          | 30         | 25V         |                | < MAG                        | IBIUK >                    |               |                      |    |
| C1231          | 1-126-967-11                 |  | 20%        | 16V         | R1202          | 1-216-025-00                 | METAL GLAZE                | 100           | 5% 1/10W             |    |
| C1232          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V         | R1204          | 1-216-025-00                 | METAL GLAZE                |               | 5% 1/10W             |    |
| C1233          | 1 100 007 11                 | 27 2/m 47 v2                                   | 200        | 1.07        | R1205          | 1-216-025-00                 | METAL GLAZE                |               | 5% 1/10W<br>5% 1/10W |    |
| C1233          | 1-126-967-11<br>1-126-967-11 | ELECT 47MF<br>ELECT 47MF                       | 20%<br>20% | 16V<br>16V  | R1206<br>R1207 | 1-216-065-00<br>1-216-073-00 | METAL GLAZE<br>METAL GLAZE |               | 5% 1/10W<br>5% 1/10W |    |
| C1237          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             | 200        | 25V         | MARY!          | 1-210-075-00                 | MILITAL CHILL              |               | /0 1/1011            |    |
| C1238          | 1-163-038-00                 | CERAMIC CHIP 0.1MF                             |            | 25V         | R1208          | 1-216-073-00                 | METAL GLAZE                |               | 5% 1/10W             |    |
|                |                              |  |            |             | R1209          | 1-216-073-00                 | METAL GLAZE                |               | 5% 1/10W             |    |
|                | < CON                        | INECTOR >                                      |            |             | R1210<br>R1211 | 1-216-073-00<br>1-216-073-00 | METAL GLAZE<br>METAL GLAZE |               | 5% 1/10W<br>5% 1/10W |    |
| CN1202         | 1-766-929-11                 | CONNECTOR, BOARD TO BOAR                       | RD 8P      |             | R1211          | 1-216-073-00                 | METAL GLAZE                |               | 5% 1/10W             |    |
| CN1203         | 1-766-929-11                 | CONNECTOR, BOARD TO BOAR                       |            |             |                |                              |                            |               |                      |    |
| CN1204         | *1-564-519-11                | PLUG, CONNECTOR 4P                             |            |             | R1213          | 1-216-073-00                 | METAL GLAZE                |               | 5% 1/10W             |    |
|                |                              |  |            |             | R1214<br>R1215 | 1-216-081-00<br>1-216-081-00 | METAL GLAZE<br>METAL GLAZE |               | 5% 1/10W<br>5% 1/10W |    |
|                |                              |  |            |             | R1215          | 1-216-001-00                 | METAL GLAZE                |               | 5% 1/10W<br>5% 1/10W |    |
|                |                              |  |            |             |                |                              |                            |               |                      |    |

| <b>A</b> 1                |  |   |  |                              |  |  |                        |                              |                          |
|---------------------------|--|---|--|------------------------------|--|--|------------------------|------------------------------|--------------------------|
| REF.NO.                   | PART NO.   | DESCRIPTION   | REMARK                                 | REF.NO.                      | PART NO.   | DESCRIPTION                                    | N                      | ĺ                            | REMARK                   |
| R1221                     | 1-216-065-00   | METAL GLAZE 4.7K 5%   | 1/10W                                  | C113<br>C115                 | 1-126-967-11<br>1-102-112-00                                 | ELECT<br>CERAMIC                               | 47MF<br>330PF          | 20%<br>10%                   | 16V<br>50V               |
| R1222<br>R1223<br>R1224   | 1-216-065-00<br>1-216-063-91<br>1-216-061-00                 | METAL GLAZE 3.9K 5%<br>METAL GLAZE 3.3K 5%                                | 1/10W<br>1/10W<br>1/10W                | C120<br>C121                 | 1-163-117-00<br>1-163-113-00                                 | CERAMIC CHIP                                   |                        | 5%<br>5%                     | -28WS2B)<br>50V<br>50V   |
| R1225<br>R1226<br>R1227   | 1-216-025-00<br>1-216-061-00<br>1-216-063-91                 | METAL GLAZE 3.3K 5%   | 1/10W<br>1/10W<br>1/10W                | C122<br>C123<br>C124         | 1-163-137-00<br>1-163-113-00                                 | CERAMIC CHIP                                   | 68PF                   | 5%<br>5%<br>5%               | 50V<br>50V<br>50V        |
| R1228<br>R1229<br>R1230   | 1-216-025-00   | METAL GLAZE 100 5%<br>METAL GLAZE 10 5%                                   | 1/10W<br>1/10W<br>1/10W<br>1/10W       | C201<br>C202                 | 1-137-399-11<br>1-163-139-00<br>1-164-004-11                 | FILM<br>CERAMIC CHIP<br>CERAMIC CHIP           |                        | 10%<br>10%                   | 50V<br>50V<br>25V        |
| R1231<br>R1232            | 1-216-061-00   | METAL GLAZE 3.3K 5%   | 1/10W<br>1/10W                         | C203<br>C204<br>C205         | 1-126-933-11<br>1-163-038-00<br>1-126-965-11                 | ELECT<br>CERAMIC CHIP<br>ELECT                 | 100MF<br>0.1MF<br>22MF | 20%<br>20%                   | 16V<br>25V<br>50V        |
| R1233<br>R1234<br>R1235   | 1-216-061-00<br>1-216-063-91<br>1-216-025-00                 | METAL GLAZE 3.3K 5%   | 1/10W<br>1/10W<br>1/10W<br>1/10W       | C206<br>C207                 | 1-163-141-00<br>1-164-505-11                                 | CERAMIC CHIP                                   | 0.001MF                | 5%                           | 50V<br>50V<br>16V        |
| R1236<br>R1237            | 1-216-025-00   | METAL GLAZE 100 5% METAL GLAZE 100 5%                                     | 1/10W<br>1/10W                         | C208<br>C209<br>C210         | 1-164-505-11<br>1-164-505-11<br>1-216-295-00                 | CERAMIC CHIP<br>CERAMIC CHIP<br>METAL GLAZE    | 2.2MF                  | 1/10W                        | 16V<br>16V               |
| R1238<br>R1239            | 1-216-025-00<br>1-216-025-00                                 | METAL GLAZE 100 5%  | 1/10W<br>1/10W                         | C211<br>C212                 | 1-164-505-11<br>1-164-346-11                                 | CERAMIC CHIP<br>CERAMIC CHIP                   | 2.2MF                  | 1,1011                       | 16V<br>16V               |
| *******                   |  | A BOARD, COMPLETE (KV-28  |  | C213<br>C214<br>C215         | 1-163-133-00<br>1-164-346-11<br>1-163-133-00                 | CERAMIC CHIP<br>CERAMIC CHIP<br>CERAMIC CHIP   | 1MF                    | 5%<br>5%                     | 50V<br>16V<br>50V        |
|                           |  | A BOARD, COMPLETE (KV-28  |  | C216<br>C217                 | 1-126-967-11<br>1-164-232-11                                 | ELECT<br>CERAMIC CHIP                          | 47MF<br>0.01MF         | 20%<br>10%                   | 16V<br>50V               |
|                           |  | A BOARD, COMPLETE (KV-28  *********************  A BOARD, COMPLETE (KV-28 |  | C218<br>C219<br>C220         | 1-126-967-11<br>1-164-232-11<br>1-164-505-11                 | ELECT<br>CERAMIC CHIP<br>CERAMIC CHIP          |                        | 20%<br>10%                   | 16V<br>50V<br>16V        |
|                           |  | A BOARD, COMPLETE (KV-28  |  | C221<br>C222                 | 1-164-505-11<br>1-164-346-11                                 | CERAMIC CHIP<br>CERAMIC CHIP                   | 1MF                    |                              | 16V<br>16V               |
|                           |  | A BOARD, COMPLETE (KV-28  | IWS2T)                                 | C223<br>C224<br>C225         | 1-163-133-00<br>1-164-346-11<br>1-163-133-00                 | CERAMIC CHIP<br>CERAMIC CHIP<br>CERAMIC CHIP   | 1MF<br>470PF           | 5%<br>5%                     | 50V<br>16V<br>50V        |
|                           |  | SOCKET, PLCC PACITOR >  |  | C226<br>C227                 | 1-126-967-11<br>1-164-232-11                                 | ELECT<br>CERAMIC CHIP                          | 47MF<br>0.01MF         | 20%<br>10%                   | 16V<br>50V               |
| C1                        | 1-163-038-00   | CERAMIC CHIP 0.1MF  | 25V                                    | C228<br>C229                 | 1-126-967-11<br>1-164-232-11                                 | ELECT<br>CERAMIC CHIP                          | 47MF                   | 20%<br>10%                   | 16V<br>50V               |
| C2                        | 1-126-965-11   | ELECT 22MF  | 20% 50V                                | C230                         | 1-216-295-00   | METAL GLAZE                                    | 0 5%                   | 1/10W                        |                          |
| C3<br>C4<br>C8            | 1-163-104-00<br>1-163-104-00<br>1-163-038-00                 | CERAMIC CHIP 30PF CERAMIC CHIP 30PF CERAMIC CHIP 0.1MF                    | 5% 50V<br>5% 50V<br>25V                | C231<br>C232                 | 1-163-038-00<br>1-126-967-11                                 | CERAMIC CHIP<br>BLECT                          | 47MF                   | 20%                          | 25V<br>16V               |
| C10<br>C11<br>C14         | 1-163-243-11<br>1-163-243-11<br>1-163-038-00                 |   | 5% 50V<br>5% 50V<br>25V                | C251<br>C252<br>C253<br>C254 | 1-163-087-00<br>1-163-087-00<br>1-163-117-00<br>1-163-109-00 | CERAMIC CHIP<br>CERAMIC CHIP<br>CERAMIC CHIP   | 4PF<br>100PF           | 0.25PF<br>0.25PF<br>5%<br>5% |                          |
| C15<br>C18                | 1-163-133-00<br>1-163-038-00                                 |   | 5% 50V<br>25V                          | C255                         | 1-163-117-00<br>1-163-038-00                                 |  | 0.1MF                  | 5%                           | 50V<br>25V               |
| C20<br>C21<br>C22<br>C43  | 1-164-232-11<br>1-164-232-11<br>1-163-117-00<br>1-163-121-00 | CERAMIC CHIP 100PF  | 10% 50V<br>10% 50V<br>5% 50V<br>5% 50V | C257<br>C258<br>C259<br>C260 | 1-126-965-11<br>1-126-964-11<br>1-164-336-11<br>1-163-038-00 | ELECT<br>ELECT<br>CERAMIC CHIP<br>CERAMIC CHIP |                        | 20%<br>20%                   | 50V<br>50V<br>25V<br>25V |
| C45<br>C80                | 1-163-038-00<br>1-163-117-00                                 | CERAMIC CHIP 0.1MF  | 25V<br>5% 50V                          | C261<br>C262                 | 1-163-133-00<br>1-163-133-00                                 | CERAMIC CHIP                                   | 470PF                  | 5%<br>5%                     | 50V<br>50V               |
| C81<br>C82<br>C90<br>C101 | 1-164-005-11<br>1-163-037-11<br>1-163-038-00<br>1-163-038-00 | CERAMIC CHIP 0.47MF<br>CERAMIC CHIP 0.022MF<br>CERAMIC CHIP 0.1MF         | 25V<br>10% 50V<br>25V<br>25V           | C263<br>C264<br>C265         | 1-163-038-00<br>1-126-962-11<br>1-126-964-11                 | CERAMIC CHIP<br>ELECT                          |                        | 20%<br>20%                   | 25V<br>50V<br>50V        |
| C101<br>C102<br>C103      | 1-126-934-11<br>1-126-965-11                                 | ELECT 220MF   | 20% 16V<br>20% 50V                     | C266<br>C267<br>C268         | 1-126-964-11<br>1-126-965-11<br>1-163-038-00                 | ELECT  | 10MF<br>22MF<br>0.1MF  | 20%<br>20%                   | 50V<br>50V<br>25V        |
| C104<br>C110<br>C112      | 1-163-117-00<br>1-126-967-11<br>1-163-141-00                 | CERAMIC CHIP 100PF<br>ELECT 47MF  | 5% 50V<br>20% 16V<br>5% 50V            | C269<br>C270                 | 1-163-131-00<br>1-163-131-00                                 | CERAMIC CHIP                                   | 390PF                  | 5%<br>5%                     | 50V<br>50V               |

|              |                              |   |            |             |                |                               | ·   |                |                   |
|--------------|------------------------------|---|------------|-------------|----------------|-------------------------------|---|----------------|-------------------|
|              |                              |   |            |             |                |                               |   |                | Δ                 |
|              |                              |   |            |             |                |                               |   |                |                   |
| REF.NO.      | PART NO.                     | DESCRIPTION                                 |            | REMARK      | REF.NO.        | PART NO.                      | DESCRIPTION                                     |                | REMARK            |
| C271         | 1-163-141-00                 | CERAMIC CHIP 0.001MF                        | 5%         | 50V         | C354           | 1-164-005-11                  | CERAMIC CHIP 0.47MF                             |                | 25V               |
| C272         | 1-163-141-00                 | CERAMIC CHIP 0.001MF                        | 5%         | 50V         | C355           | 1-126-965-11                  | ELECT 22MF                                      | 20%            | 50V               |
| C273<br>C274 | 1-163-141-00                 | CERAMIC CHIP 0.001MF                        | 5%         | 50V         | C356<br>C357   | 1-164-232-11                  | CERAMIC CHIP 0.01MF                             | 10%            | 50V               |
| C275         | 1-163-141-00<br>1-164-346-11 | CERAMIC CHIP 0.001MF<br>CERAMIC CHIP 1MF    | 5%         | 50V<br>16V  | C358           | 1-163-133-00<br>1-164-005-11  | CERAMIC CHIP 470PF<br>CERAMIC CHIP 0.47MF       | 5%             | 50V<br>25V        |
| C276         | 1-164-346-11                 | CERAMIC CHIP 1MF                            |            | 16V         | C359           | 1-163-231-11                  | CERAMIC CHIP 15PF                               | 5%             | 50V               |
| C277         | 1-164-346-11                 | CERAMIC CHIP 1MF                            |            | 16V         | C360           | 1-163-231-11                  | CERAMIC CHIP 15PF                               | 5%             | 50V               |
| C278         | 1-164-346-11                 | CERAMIC CHIP 1MF                            | 0.00       | 16V         | C370           | 1-164-505-11                  | CERAMIC CHIP 2.2MF                              | = /0 0wa0      | 16V<br>= (00waan) |
| C279<br>C280 | 1-126-965-11<br>1-163-038-00 | ELECT 22MF<br>CERAMIC CHIP 0.1MF            | 20%        | 50V<br>25V  | C371           | 1-163-141-00                  | (KV-28WS2B/28WS2D/28WS2<br>CERAMIC CHIP 0.001MF | 5%<br>5%       | 50V               |
| C281         | 1-126-965-11                 | ELECT 22MF                                  | 20%        | 50V         | C372           | 1-164-004-11                  | CERAMIC CHIP 0.1MF                              | 10%            | 25V               |
| C282<br>C300 | 1-163-038-00<br>1-163-109-00 | CERAMIC CHIP 0.1MF<br>CERAMIC CHIP 47PF     | 5%         | 25V<br>50V  | C373           | 1-164-489-11                  | (KV-28WS2B/28WS2D/28WS2<br>CERAMIC CHIP 0.22MF  | E/28WS2<br>10% | K/28WS2R)<br>16V  |
| C301         | 1-163-038-00                 | CERAMIC CHIP 0.1MF                          |            | 25V         |                |                               | (KV-28WS2B/28WS2D/28WS2                         | E/28WS2        | K/28WS2R)         |
| C302         | 1-163-141-00                 | CERAMIC CHIP 0.001MF                        | 5%         | 50V         | C1001          | 1-163-235-11                  | CERAMIC CHIP 22PF                               | 5%             | 50V               |
| C303         | 1-163-141-00                 | CERAMIC CHIP 0.001MF                        | 5%         | 50V         | C1002          | 1-163-235-11                  |   | 5%             | 50V               |
| C304<br>C305 | 1-163-038-00<br>1-163-038-00 | CERAMIC CHIP 0.1MF<br>CERAMIC CHIP 0.1MF    |            | 25V<br>25V  | C1010<br>C1013 | 1-163-038-00<br>1-126-965-11  | CERAMIC CHIP 0.1MF<br>ELECT 22MF                | 20%            | 25V<br>50V        |
| C306         | 1-164-232-11                 | CERAMIC CHIP 0.1MF                          | 10%        | 50V         | C1013          | 1-163-038-00                  | CERAMIC CHIP 0.1MF                              | 400            | 25V               |
| C307         | 1-164-232-11                 |   | 10%        | 50V         | C1015          | 1-164-489-11                  |   | 10%            | 16V               |
| C308         | 1-164-232-11                 | CERAMIC CHIP 0.01MF                         | 10%        | 50V         | C1020          | 1-163-101-00                  | CERAMIC CHIP 22PF                               | 5%             | 50 <b>V</b>       |
| C309<br>C310 | 1-164-346-11<br>1-164-346-11 | CERAMIC CHIP 1MF<br>CERAMIC CHIP 1MF        |            | 16V<br>16V  |                | < FIL                         | TER >   |                |                   |
| C311<br>C312 | 1-164-346-11<br>1-164-505-11 | CERAMIC CHIP 1MF<br>CERAMIC CHIP 2.2MF      |            | 16V<br>16V  | CF120          | 1-409-327-00                  | TRAP, CERAMIC (6.5MEz)                          | (KV-28W        | S2B)              |
| C313         | 1-163-141-00                 | CERAMIC CHIP 0.001MF                        | 5%         | 50 <b>V</b> | 0              |                               | NECTOR >  | ,              | ,                 |
| C315         | 1-216-295-00                 | METAL GLAZE 0 5%                            | 1/10       | 7           |                |                               |   |                |                   |
| C317<br>C319 | 1-163-038-00<br>1-163-017-00 | CERAMIC CHIP 0.1MF<br>CERAMIC CHIP 0.0047MF | 10%        | 25V<br>50V  | CN1<br>CN2     | 1-695-302-11<br>*1-568-880-51 | CONNECTOR, BOARD TO BOA<br>PIN, CONNECTOR 5P    | RD 50P         |                   |
| C320         | 1-126-965-11                 | ELECT 22MF                                  | 20%        | 50V<br>50V  | CN4            |                               | PIN, CONNECTOR 3P                               |                |                   |
|              |                              |   |            |             | CN201          | 1-766-296-11                  | CONNECTOR, DUAL SCART                           |                |                   |
| C321         | 1-164-232-11                 |   | 10%        | 50V         | CN202          | 1-766-928-11                  | CONNECTOR, BOARD TO BOA                         | RD 8P          |                   |
| C322<br>C323 | 1-163-037-11<br>1-163-037-11 | CERAMIC CHIP 0.22MF<br>CERAMIC CHIP 0.22MF  | 10%<br>10% | 50V<br>50V  | CN203          | 1-766-928-11                  | CONNECTOR, BOARD TO BOA                         | RD RP          |                   |
| C324         | 1-163-037-11                 | CERAMIC CHIP 0.22MF                         | 10%        | 50V         | CN301          |                               | PIN, CONNECTOR 7P                               |                |                   |
| C325         | 1-164-346-11                 | CERAMIC CHIP 1MF                            |            | 16V         |                | < DIO                         | DE >  |                |                   |
| C326         | 1-163-141-00                 | CERAMIC CHIP 0.001MF                        | 5%         | 50V         |                |                               |   |                |                   |
| C327         | 1-137-374-11                 | FILM 0.047MF                                | 5%         | 50V         | D2             |                               | DIODE 188355                                    |                |                   |
| C328<br>C329 | 1-126-964-11<br>1-164-232-11 | ELECT 10MF<br>CERAMIC CHIP 0.01MF           | 20%<br>10% | 50V<br>50V  | D10<br>D11     | 8-719-158-15<br>8-719-158-15  | DIODE RD5.6S-B<br>DIODE RD5.6S-B                |                |                   |
| C330         | 1-130-777-00                 | FILM 0.1MF                                  | 5%         | 63V         | D12            | 8-719-158-15                  | DIODE RD5.68-B                                  |                |                   |
| C331         | 1-137-581-11                 | FILM 0.1MF                                  | 5%         | 100V        | D101           | 8-719-977-81                  | DIODE DTZ33B                                    |                |                   |
| C332         | 1-164-232-11                 | CERAMIC CHIP 0.01MF                         | 10%        | 507         | D201           | 8-719-977-22                  | DIODE DTZ9.1                                    |                |                   |
| C333         | 1-126-933-11                 | ELECT 100MF                                 | 20%        | 16V         | D202           | 8-719-977-22                  | DIODE DTZ9.1                                    |                |                   |
| C334         | 1-164-232-11                 | CERAMIC CHIP 0.01MF                         | 10%        | 50V         | D203           | 8-719-977-22                  | DIODE DTZ9.1                                    |                |                   |
| C335         | 1-164-004-11                 | CERAMIC CHIP 0.1MF                          | 10%        | 25V         | D204<br>D205   | 8-719-977-22<br>8-719-977-22  | DIODE DTZ9.1<br>DIODE DTZ9.1                    |                |                   |
| C336         |                              | CERAMIC CHIP 0.001MF                        | 10%        | 50V         |                |                               |   |                |                   |
| C337<br>C338 | 1-163-009-11<br>1-164-346-11 |   | 10%        | 50V<br>16V  | D206<br>D207   | 8-719-977-22<br>8-719-977-22  |   |                |                   |
| C339         | 1-164-232-11                 |   | 10%        | 50V         | D207           | 8-719-977-22                  |   |                |                   |
| C340         | 1-126-933-11                 |   | 20%        | 16V         | D209           | 8-719-977-22                  | DIODE DTZ9.1                                    |                |                   |
| C341         | 1-164-005-11                 | CERAMIC CHIP 0.47MF                         |            | 25V         | D210           | 8-719-977-22                  | DIODE DTZ9.1                                    |                |                   |
| C342         |                              | CERAMIC CHIP 0.47MF                         |            | 16V         | D211           | 8-719-977-22                  | DIODE DTZ9.1                                    |                |                   |
| C343         | 1-163-017-00                 | CERAMIC CHIP 0.0047MF                       | 10%        | 50V         | D212           | 8-719-977-22                  | DIODE DTZ9.1                                    |                |                   |
| C344         |                              | CERAMIC CHIP 100PF                          | 5%         | 50V         | D213           | 8-719-977-22                  |   |                |                   |
| C347         |                              | CERAMIC CHIP 0.47MF                         |            | 25V         | D214<br>D215   | 8-719-977-22<br>8-719-977-22  |   |                |                   |
| C348         |                              | CERAMIC CHIP 0.1MF                          | 000        | 25V         | 2016           | 0 710 150 15                  | DIADE DDE CA D                                  |                |                   |
| C350<br>C351 | 1-126-964-11<br>1-164-505-11 |   | 20%        | 50V<br>16V  | D216<br>D217   |                               | DIODE RD5.68-B<br>DIODE RD5.68-B                |                |                   |
| C352         |                              | CERAMIC CHIP 2.2MF                          |            | 25V         | D217           |                               | DIODE RD5.68-B                                  |                |                   |
| C353         |                              | CERAMIC CHIP 2.2MF                          |            | 16V         | D220           | 8-719-988-62                  | DIODE 188355                                    |                |                   |
|              |                              |   |            |             | D221           | 8-719-988-62                  | DIODE 188355                                    |                |                   |



| REF.NO.        | PART NO.                     | DESCRIPTION                                | REMARK                       | REF.NO.        | PART NO.                     | DESCRIPTION                    | <u>N</u>           | REMARK         |
|----------------|------------------------------|--|------------------------------|----------------|------------------------------|--------------------------------|--------------------|----------------|
| D222           | 8-719-977-22                 | DIODE DTZ9.1                               |                              | Q130           |                              | TRANSISTOR 2S                  |                    | (V-28WS2B)     |
| D223           |                              | DIODE DTZ9.1                               |                              | Q201           | 8-729-920-74                 | TRANSISTOR 2S                  |                    |                |
| D224<br>D225   |                              | DIODE DTZ9.1<br>DIODE DTZ9.1               |                              | Q202<br>Q205   | 8-729-920-74<br>8-729-901-01 |                                |                    |                |
| D226           |                              | DIODE DTZ9.1                               |                              | Q206           | 8-729-216-22                 | TRANSISTOR 2S                  |                    |                |
| D227           |                              | DIODE DTZ-6.8C                             |                              | Q207           |                              | TRANSISTOR 2S                  |                    |                |
| D251<br>D320   | 8-719-047-16<br>8-719-977-22 | DIODE BAS216<br>DIODE DTZ9.1               |                              | Q300<br>Q304   | 8-729-901-01                 | TRANSISTOR DT<br>TRANSISTOR 2S |                    |                |
| D370           |                              | DIODE BAS216                               |                              | Q305           |                              | TRANSISTOR 2S                  | C2412K-QR          |                |
|                |                              | (KV-28WS2B/28WS2D/                         | 28WS2E/28WS2K/28WS2R)        | Q306           | 8-729-901-01                 | TRANSISTOR DT                  | C144EK             |                |
| D1010          | 8-719-036-58                 | DIODE MA3030-H(TX)                         |                              | Q330<br>Q331   | 8-729-216-22<br>8-729-920-74 | TRANSISTOR 2S<br>TRANSISTOR 2S |                    |                |
|                | < LIN                        | E FILTER >                                 |                              | Q331<br>Q332   | 8-729-920-74                 |                                |                    |                |
|                | 1 000 001 11                 |  | ****                         | Q1001          | 8-729-901-01                 | TRANSISTOR DT                  | C144EK             |                |
| FL101<br>FL201 |                              | ENCAPSULATED COMPONENCAPSULATED COMPONENCE |                              | Q1002          | 8-729-216-22                 | TRANSISTOR 2S                  | A1162-G            |                |
| FL202          | 1-236-071-11                 | ENCAPSULATED COMPO                         | TENT                         |                | < RES                        | ISTOR >                        |                    |                |
| FL203          |                              | ENCAPSULATED COMPO                         |                              | TD1 01         | 1 216 205 00                 | WHENT CLASS                    | A E0.              | 1 /1 ow        |
| FL1001         | 1-230-0/1-11                 | ENCAPSULATED COMPO                         | IBNI                         | JR101<br>JR201 | 1-216-295-00<br>1-216-295-00 | METAL GLAZE                    | 0 5%<br>0 5%       | 1/10W<br>1/10W |
|                | < IC                         | >  |                              | JR204          | 1-216-295-00                 | METAL GLAZE                    | 0 5%               | 1/10W          |
| IC1            | 8-759-376-75                 | IC SDA5250M-C5-GEG                         |                              | JR205<br>JR206 | 1-216-295-00<br>1-216-295-00 | METAL GLAZE                    | 0 5%<br>0 5%       | 1/10W<br>1/10W |
| IC2            | 8-759-334-20                 | IC ST24E32M6TR                             |                              | UR200          | 1-216-293-00                 | METAL GLAZE                    | U 36               | T/ TOM         |
| IC3            | 8-759-353-82                 | IC TMS27PC020-15FM                         | 1                            | JR207          | 1-216-295-00                 |                                | 0 5%               | 1/10W          |
| IC4<br>IC201   | 8-759-394-57                 | IC PST593C-MMP-4P<br>IC CXA2040Q-T4        |                              | JR304<br>JR305 | 1-216-296-91<br>1-216-296-91 | METAL GLAZE                    | 0 5%<br>0 5%       | 1/8W<br>1/8W   |
|                |                              | •  | -                            |                |                              | METAL GLAZE                    |                    | ,              |
| IC202          | 8-759-376-80                 |  | 28WS2B/28WS2E/28WS2T)        | R1<br>R2       | 1-216-025-00                 | METAL GLAZE                    | 0 5%<br>100 5%     | 1/10W<br>1/10W |
|                | 8-759-376-56                 | IC MSP3400C-PS-C6-                         | [<br>  R8WS2D/28WS2K/28WS2R) | R3<br>R4       | 1-216-025-00<br>1-216-013-00 | METAL GLAZE<br>METAL GLAZE     | 100 5%<br>33 5%    | 1/10W<br>1/10W |
| IC203          | 8-759-385-76                 | IC MC14052BDR2                             | iondadi aondari aondari      | R5             | 1-216-065-00                 |                                | 4.7K 5%            | 1/10W          |
| IC301          | 8-752-076-09                 | IC CXA2000Q-TL                             |                              | R7             | 1-216-041-00                 | METAL GLAZE                    | 470 5%             | 1/10W          |
| IC302          | 8-759-288-85                 | IC TDA4665T-T                              |                              | R8             |                              | METAL GLAZE                    | 4.7K 5%            | 1/10W          |
| IC303          | 8-759-251-56                 | IC TDA8395T/N3<br>(KV-28WS2B/28WS2D/       | 8WS2E/28WS2K/28WS2R)         | R9<br>R10      | 1-216-041-00<br>1-216-041-00 | METAL GLAZE<br>METAL GLAZE     | 470 5%<br>470 5%   | 1/10W<br>1/10W |
| IC1001         | 8-759-376-76                 | IC SDA5273CP-GEG                           | ,                            | R11            | 1-216-041-00                 | METAL GLAZE                    | 470 5%             | 1/10W          |
|                | < COI                        | L >  |                              | R12            | 1-216-041-00                 | METAL GLAZE                    | 470 5%             | 1/10W          |
| L10            | 1-410-379-31                 | INDUCTOR CHIP 6.8                          | TH.                          | R18<br>R19     | 1-216-025-00<br>1-216-025-00 | METAL GLAZE<br>METAL GLAZE     | 100 5%<br>100 5%   | 1/10W<br>1/10W |
| L102           | 1-408-406-00                 | INDUCTOR 5.6                               | JE (KV-28WS2B)               | R20            | 1-216-025-00                 | METAL GLAZE                    | 100 5%             | 1/10W          |
| L111<br>L120   | 1-410-993-11<br>1-408-408-00 |  | ***                          | R21            | 1-216-025-00                 | metal glaze                    | 100 5%             | 1/10W          |
| L121           | 1-408-397-00                 | INDUCTOR 8.21<br>INDUCTOR 1UH              | ) <u>L</u>                   | R24            | 1-216-065-00                 | METAL GLAZE                    | 4.7K 5%            | 1/10W          |
|                |                              |  | _                            | R25            | 1-216-065-00                 | METAL GLAZE                    | 4.7K 5%            | 1/10W          |
| L122<br>L300   | 1-408-408-00<br>1-408-607-31 | INDUCTOR 8.21<br>INDUCTOR 2.21             |                              | R28<br>R29     | 1-216-065-00<br>1-216-065-00 | METAL GLAZE<br>METAL GLAZE     | 4.7K 5%<br>4.7K 5% | 1/10W<br>1/10W |
| 2500           |                              |  | <b>,_</b>                    | R30            | 1-216-065-00                 |                                | 4.7K 5%            | 1/10W          |
|                | < TRA                        | MSISTOR >                                  |                              | R31            | 1-216-065-00                 | METAL GLAZE                    | 4.7K 5%            | 1/10W          |
| 01             | 8-729-920-74                 |  |                              | R32            | 1-216-025-00                 | METAL GLAZE                    | 100 5%             | 1/10W          |
| Q4<br>Q15      |                              | TRANSISTOR 2SC24121<br>TRANSISTOR 2SA1162  |                              | R33<br>R34     | 1-216-025-00<br>1-216-025-00 |                                | 100 5%<br>100 5%   | 1/10W<br>1/10W |
| Q13<br>Q17     |                              | TRANSISTOR 2SA1162                         |                              | R35            | 1-216-025-00                 |                                | 100 5%             | 1/10W          |
| Q80            |                              | TRANSISTOR 2SC2412                         |                              |                |                              |                                | 4 === =0           |                |
| Q81            | 8-729-216-22                 | TRANSISTOR 2SA1162                         | -G                           | R36<br>R37     | 1-216-065-00<br>1-216-065-00 |                                | 4.7K 5%<br>4.7K 5% | 1/10W<br>1/10W |
| Q110           |                              | TRANSISTOR 2SC2412                         |                              | R38            | 1-216-065-00                 |                                | 4.7K 5%            | 1/10W          |
| Q111           |                              | TRANSISTOR 2SA1162                         |                              | R39            | 1-216-073-00                 |                                | 10K 5%             | 1/10W          |
| Q112<br>Q113   |                              | TRANSISTOR 2SC2412                         |                              | R40            | 1-216-067-00                 | metal Glaze                    | 5.6K 5%            | 1/10W          |
|                |                              |  |                              | R42            | 1-216-069-00                 |                                | 6.8K 5%            | 1/10W          |
| Q114<br>Q120   |                              | TRANSISTOR 2SA1162-<br>TRANSISTOR 2SC2412  |                              | R44<br>R46     | 1-216-069-00<br>1-216-095-00 |                                | 6.8K 5%<br>82K 5%  | 1/10W<br>1/10W |
| Q121           | 8-729-920-74                 | TRANSISTOR 2SC2412                         | K-QR (KV-28WS2B)             | R47            | 1-216-057-00                 |                                | 2.2K 5%            | 1/10W<br>1/10W |
| Q122           | 8-729-920-74                 | TRANSISTOR 2SC2412                         | K-QR                         | R48            | 1-216-121-91                 |                                | 1M 5%              | 1/10W          |
| Q124           | 8-729-920-74                 | TRANSISTOR 2SC2412                         | (-QR (KV-28WS2B)             |                |                              |                                |                    |                |

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| DEE NO       | DADT NO                      | DESCRIPTION    |                    | DEMADY               | DEE NO       | DADT NO                      | DESCRIPTION                | N               | DEMADY   |
|--------------|------------------------------|----------------|--------------------|----------------------|--------------|------------------------------|----------------------------|-----------------|----------|
| REF.NO.      | PART NO.                     | DESCRIPTION    |                    | REMARK               | REF.NO.      | PART NO.                     | DESCRIPTIO                 | N               | REMARK   |
| R49<br>R50   | 1-216-025-00<br>1-216-065-00 |                | 100 5%<br>4.7K 5%  | 1/10W<br>1/10W       | R118<br>R119 | 1-216-071-00<br>1-216-033-00 | METAL GLAZE<br>METAL GLAZE | 8.2K 5<br>220 5 | ,        |
| R51          | 1-216-059-00                 | METAL GLAZE    | 2.7K 5%            | 1/10W                | R120         | 1-216-069-00                 | METAL GLAZE                | 6.8K 5          | % 1/10W  |
| R52<br>R53   | 1-216-065-00<br>1-216-059-00 |                | 4.7K 5%<br>2.7K 5% | 1/10W<br>1/10W       | R121<br>R122 | 1-216-073-00<br>1-216-041-00 | METAL GLAZE<br>METAL GLAZE | 10K 5           |          |
|              |                              |                |                    | •                    |              |                              |                            |                 | •        |
| R54<br>R58   | 1-216-025-00<br>1-216-063-91 |                | 100 5%<br>3.9K 5%  | 1/10W<br>1/10W       | R123<br>R124 | 1-216-031-00<br>1-216-049-00 | METAL GLAZE<br>METAL GLAZE | 180 5<br>1K 5   |          |
| R59          | 1-216-025-00                 | METAL GLAZE    | 100 5%             | 1/10W                | R125         | 1-216-081-00                 | METAL GLAZE                | 22K 5           | % 1/10W  |
| R60<br>R61   | 1-216-025-00<br>1-216-025-00 |                | 100 5%<br>100 5%   | 1/10W<br>1/10W       | R126<br>R127 | 1-216-025-00<br>1-216-081-00 | METAL GLAZE<br>METAL GLAZE | 100 5<br>22K 5  |          |
|              |                              |                |                    |                      |              |                              |                            |                 |          |
| R62<br>R63   | 1-216-025-00<br>1-216-025-00 |                | 100 5%<br>100 5%   | 1/10W<br>1/10W       | R128<br>R129 | 1-216-035-00<br>1-216-037-00 | METAL GLAZE<br>METAL GLAZE | 270 5<br>330 5  |          |
| R64          | 1-216-025-00                 |                | 100 5%             | 1/10W                | R130         | 1-216-061-00                 | METAL GLAZE                | 3.3K 5          | % 1/10W  |
| R65<br>R66   | 1-216-025-00<br>1-216-057-00 |                | 100 5%<br>2.2K 5%  | 1/10W<br>1/10W       | R131<br>R132 | 1-216-073-00<br>1-216-025-00 | METAL GLAZE<br>METAL GLAZE | 10K 5           |          |
| R67          | 1-216-057-00                 | METAL GLAZE    | 2.2K 5%            | 1/10W                | R133         | 1-216-041-00                 | METAL GLAZE                | 470 5           |          |
| R69          | 1-216-037-00                 |                | 100 5%             | 1/10W                | R134         | 1-216-001-00                 | METAL GLAZE                | 10 5            |          |
| R70          | 1-216-025-00                 |                | 100 5%             | 1/10W                | R135         | 1-216-045-00                 | METAL GLAZE                | 680 5           |          |
| R71<br>R72   | 1-216-025-00<br>1-216-025-00 |                | 100 5%<br>100 5%   | 1/10W<br>1/10W       | R136<br>R137 | 1-216-033-00<br>1-216-049-00 | METAL GLAZE<br>METAL GLAZE | 220 5<br>1K 5   |          |
| 2022         |                              | VIII. (1111    | 100 50             |                      | D120         |                              |                            | 470 5           | o. 1/10w |
| R73<br>R74   | 1-216-025-00<br>1-216-025-00 |                | 100 5%<br>100 5%   | 1/10W<br>1/10W       | R138<br>R200 | 1-216-041-00<br>1-216-049-00 | METAL GLAZE                | 470 5<br>1K 5   |          |
| R75          | 1-216-025-00                 |                | 100 5%<br>100 5%   | 1/10W                | R201<br>R202 | 1-216-033-00                 | METAL GLAZE<br>METAL GLAZE | 220 5<br>220 5  |          |
| R76<br>R77   | 1-216-025-00<br>1-216-025-00 |                | 100 5%             | 1/10W<br>1/10W       | R203         | 1-216-033-00<br>1-216-025-00 | METAL GLAZE                | 100 5           |          |
| R78          | 1-216-025-00                 | METAL GLAZE    | 100 5%             | 1/10W                | R204         | 1-216-025-00                 | METAL GLAZE                | 100 5           | % 1/10W  |
| R79          | 1-216-033-00                 | METAL GLAZE    | 220 5%             | 1/10W                | R205         | 1-216-689-11                 | METAL GLAZE                | 39K 5           | % 1/10W  |
| R80<br>R81   | 1-216-049-00<br>1-216-081-00 |                | 1K 5%<br>22K 5%    | 1/10W<br>1/10W       | R206<br>R208 | 1-216-033-00<br>1-216-041-00 | METAL GLAZE<br>METAL GLAZE | 220 5<br>470 5  |          |
| R82          | 1-216-065-00                 |                | 4.7K 5%            | 1/10W                | R209         | 1-216-049-00                 |                            | 1K 5            |          |
| R83          | 1-216-073-00                 | METAL GLAZE    | 10K 5%             | 1/10W                | R210         | 1-216-017-91                 | METAL GLAZE                | 47 5            | % 1/10W  |
| R84          | 1-216-081-00                 | METAL GLAZE    | 22K 5%             | 1/10W                | R211         | 1-216-033-00                 | METAL GLAZE                | 220 5           | % 1/10W  |
| R85<br>R86   | 1-216-073-00<br>1-216-077-00 |                | 10K 5%<br>15K 5%   | 1/10W<br>1/10W       | R212<br>R213 | 1-216-022-00<br>1-216-022-00 | METAL GLAZE<br>METAL GLAZE | 75 5<br>75 5    |          |
| R87          | 1-216-081-00                 |                | 22K 5%             | 1/10W                | R214         | 1-216-025-00                 |                            | 100 5           |          |
| R88          | 1-216-025-00                 | METAL GLAZE    | 100 5%             | 1/10W                | R216         | 1-216-025-00                 | METAL GLAZE                | 100 5           | % 1/10W  |
| R91          | 1-216-025-00                 |                | 100 5%             | 1/10W                | R217         | 1-216-113-00                 | METAL GLAZE                | 470K 5          |          |
| R92<br>R93   | 1-216-025-00<br>1-216-033-00 |                | 100 5%<br>220 5%   | 1/10W<br>1/10W       | R218<br>R219 | 1-216-025-00<br>1-216-113-00 | METAL GLAZE<br>METAL GLAZE | 100 5<br>470K 5 |          |
| R94          | 1-216-033-00                 | METAL GLAZE    | 220 5%             | 1/10W                | R220         | 1-216-295-00                 | METAL GLAZE                | 0 5             | % 1/10W  |
| R95          | 1-216-033-00                 |                | 220 5%             | 1/10W                | R221         | 1-216-039-00                 |                            | 390 5           |          |
| R97<br>R98   | 1-216-295-00<br>1-216-295-00 |                | 0 5%<br>0 5%       | 1/10W<br>1/10W       | R222<br>R223 | 1-216-089-00<br>1-216-295-00 | METAL GLAZE<br>METAL GLAZE | 47K 5           |          |
| R101         | 1-216-061-00                 | METAL GLAZE    | 3.3K 5%            | 1/10W                | R224         | 1-216-039-00                 | METAL GLAZE                | 390 5           | % 1/10W  |
| R102         | 1-216-025-00                 | METAL GLAZE    | 100 5%             | 1/10W                | R225         | 1-216-089-00                 | metal glaze                | 47K 5           | % 1/10W  |
| R103         | 1-216-025-00                 |                | 100 5%             | 1/10W                | R226         | 1-216-033-00                 | METAL GLAZE                | 220 5           |          |
| R104<br>R105 | 1-216-073-00<br>1-216-113-00 |                | 10K 5%<br>470K 5%  | 1/10W<br>1/10W       | R227<br>R228 | 1-216-022-00<br>1-216-022-00 | METAL GLAZE<br>METAL GLAZE | 75 5<br>75 5    |          |
| R106         | 1-216-073-00                 | METAL GLAZE    | 10K 5%             | 1/10W                | R229         | 1-216-033-00                 | METAL GLAZE                | 220 5           | % 1/10W  |
| R110         | 1-216-073-00                 | METAL GLAZE    | 10K 5%             | 1/10W                | R230         | 1-216-022-00                 | METAL GLAZE                | 75 5            | % 1/10W  |
| R111         | 1-216-029-00                 |                | 150 5%             | 1/10W                | R232         | 1-216-025-00                 |                            | 100 5           |          |
| R112<br>R113 | 1-216-029-00<br>1-216-001-00 |                | 150 5%<br>10 5%    | 1/10W<br>1/10W       | R233<br>R234 | 1-216-025-00<br>1-216-113-00 |                            | 100 5<br>470K 5 |          |
| R114         | 1-216-029-00                 | METAL GLAZE    | 150 5%             | 1/10W                | R235         | 1-216-025-00                 | METAL GLAZE                | 100 5           | % 1/10W  |
| R115         | 1-216-037-00                 |                | 330 5%             | 1/10W                | R236         | 1-216-113-00                 | metal Glaze                | 470K 5          | % 1/10W  |
| R116<br>R117 | 1-216-065-00<br>1-216-055-00 |                | 4.7K 5%<br>1.8K 5% | 1/10W<br>1/10W       | R237<br>R238 | 1-216-295-00<br>1-216-089-00 |                            | 0 5<br>47K 5    |          |
| ETT/         | 1-710-033-00                 | (KV-28WS2B/28W | IS2D/28WS2E        | /28WS2K/28WS2R)      | R239         | 1-216-039-00                 | METAL GLAZE                | 390 5           | % 1/10W  |
|              | 1-216-056-00                 | METAL GLAZE    | 2.0K 5%            | 1/10W<br>(KV-28WS2U) | R240<br>R241 | 1-216-295-00<br>1-216-089-00 |                            | 0 5<br>47K 5    |          |
|              |                              |                |                    | (A4-40MD4U)          | WEST         | 1-210-003-00                 | WEIWN GHWUR                | ±/A 3           | A T\TAM  |

| Λ            |                              |               |                   |                      |                |                              |                                |                   |                |             |
|--------------|------------------------------|---------------|-------------------|----------------------|----------------|------------------------------|--------------------------------|-------------------|----------------|-------------|
|              |                              |               |                   |                      |                | D. D. W.                     |                                |                   |                |             |
| REF.NO.      | PART NO.                     | DESCRIPTION   |                   | REMARK               | REF.NO.        | PART NO.                     | DESCRIPTION                    | <u> </u>          |                | REMARK      |
| R242         | 1-216-039-00                 |               | 390 5%            | 1/10W                | R344           | 1-216-067-00                 | METAL GLAZE                    | 5.6K 5%           | 1/10           |             |
| R243<br>R244 | 1-216-033-00<br>1-216-033-00 |               | 220 5%<br>220 5%  | 1/10W<br>1/10W       | R345<br>R346   | 1-216-025-00<br>1-216-063-91 | METAL GLAZE<br>METAL GLAZE     | 100 5%<br>3.9K 5% | 1/10V<br>1/10V |             |
| R245         | 1-216-073-00                 |               | 10K 5%            | 1/10W                | R347           | 1-216-025-00                 | METAL GLAZE                    | 100 5%            | 1/10           |             |
| R246         | 1-216-053-00                 | METAL GLAZE 1 | 1.5K 5%           | 1/10W                | R348           | 1-216-025-00                 | METAL GLAZE                    | 100 5%            | 1/10           | ī           |
| R247         | 1-216-053-00                 |               | 1.5K 5%           | 1/10W                | R349           | 1-216-025-00                 | METAL GLAZE                    | 100 5%            | 1/10           |             |
| R249         | 1-216-001-00                 |               | 10 5%<br>100 5%   | 1/10W                | R350           | 1-216-042-00                 | METAL GLAZE<br>METAL GLAZE     | 510 5%            | 1/10           |             |
| R251<br>R252 | 1-216-025-00<br>1-216-025-00 |               | 100 5%<br>100 5%  | 1/10W<br>1/10W       | R351<br>R352   | 1-216-053-00<br>1-216-077-00 | METAL GLAZE                    | 1.5K 5%<br>15K 5% | 1/10V<br>1/10V |             |
| R253         | 1-216-025-00                 | METAL GLAZE 1 | 100 5%            | 1/10W                | R353           | 1-216-033-00                 | METAL GLAZE                    | 220 5%            | 1/10           |             |
| R254         | 1-216-025-00                 |               | 100 5%            | 1/10W                | R354           | 1-216-295-00                 | METAL GLAZE                    | 0 5%              | 1/10           |             |
| R255<br>R256 | 1-216-025-00<br>1-216-025-00 |               | 100 5%<br>100 5%  | 1/10W<br>1/10W       | R357<br>R370   | 1-216-049-00<br>1-216-295-00 | METAL GLAZE<br>METAL GLAZE     | 1K 5%<br>0 5%     | 1/10¥<br>1/10¥ |             |
| R270         | 1-216-023-00                 |               | 75 5%             | 1/10W                | R1001          | 1-216-235-00                 | METAL GLAZE                    | 100 5%            | 1/10           |             |
| R271         | 1-216-022-00                 | METAL GLAZE   | 75 5%             | 1/10W                | R1002          | 1-216-025-00                 | METAL GLAZE                    | 100 5%            | 1/10           |             |
| R272         | 1-216-022-00                 |               | 75 5%             | 1/10W                | R1010          | 1-216-295-00                 | METAL GLAZE                    | 0 5%              | 1/10           |             |
| R273<br>R280 | 1-216-022-00<br>1-216-049-00 |               | 75 5%<br>1K 5%    | 1/10W<br>1/10W       | R1012<br>R1014 | 1-216-041-00<br>1-216-065-00 | METAL GLAZE<br>METAL GLAZE     | 470 5%<br>4.7K 5% | 1/10¥<br>1/10¥ |             |
| R281         | 1-216-089-00                 |               | 47K 5%            | 1/10W                | R1020          | 1-216-097-00                 | METAL GLAZE                    | 100K 5%           | 1/10           |             |
| R282         | 1-216-093-00                 | METAL GLAZE   | 68K 5%            | 1/10W                | R1021          | 1-216-029-00                 | METAL GLAZE                    | 150 5%            | 1/10           | 1           |
| R284         | 1-216-089-00                 | METAL GLAZE   | 47K 5%            | 1/10W                | R1022          | 1-216-029-00                 | METAL GLAZE                    | 150 5%            | 1/10           | 7           |
| R285<br>R300 | 1-216-093-00                 |               | 68K 5%            | 1/10W<br>1/10W       | R1023          | 1-216-029-00                 | METAL GLAZE<br>METAL GLAZE     | 150 5%<br>100 5%  | 1/10V<br>1/10V |             |
| R301         | 1-216-025-00<br>1-216-033-00 |               | 100 5%<br>220 5%  | 1/10W                | R1024<br>R1026 | 1-216-025-00<br>1-216-025-00 | METAL GLAZE                    | 100 5%<br>100 5%  | 1/10           |             |
| R302         | 1-216-295-00                 |               | 0 5%              | 1/10W                | R1027          | 1-216-025-00                 | METAL GLAZE                    | 100 5%            | 1/10           |             |
| R303         | 1-216-295-00                 |               | 0 5%              | 1/10W                | R1028          | 1-216-025-00                 | METAL GLAZE                    | 100 5%            | 1/10           | 7           |
| R308<br>R309 | 1-216-025-00<br>1-216-033-00 |               | 100 5%<br>220 5%  | 1/10W<br>1/10W       |                | < TUN                        | TED \                          |                   |                |             |
| R310         | 1-216-033-00                 |               | 220 5%            | 1/10W                |                | 100                          | BA /                           |                   |                |             |
| R311         | 1-216-295-00                 | METAL GLAZE ( | 0 5%              | 1/10W                | TU101          | 1-693-338-11                 |                                | P)<br>WS2D/28WS21 | R/28WS21       | (/28WS2R)   |
| R312         | 1-216-295-00                 |               | 0 5%              | 1/10W                |                | 1-693-340-11                 |                                |                   |                | .,,         |
| R313<br>R314 | 1-216-295-00                 |               | 0 5%<br>0 5%      | 1/10W<br>1/10W       |                | 1-693-339-11                 | TUNER/VIF (UK                  | ) (KV-28WS        | 2 <b>T</b> )   |             |
| R315         | 1-216-295-00<br>1-216-295-00 |               | 0 5%              | 1/10W                |                | < CRY                        | STAL >                         |                   |                |             |
| R316         | 1-216-033-00                 | METAL GLAZE   | 220 5%            | 1/10W                | <b>X</b> 1     | 1_767_154_01                 | VIBRATOR, CER                  | AMTC              |                |             |
| R318         | 1-216-689-11                 | METAL GLAZE   | 39K 5%            | 1/10W                | X201           |                              | VIBRATOR, CRY                  |                   | 2MHz           |             |
| R319         | 1-216-081-00                 |               | 22K 5%            | 1/10W                | X301           | 1-567-504-11                 | OSCILLATOR, C                  |                   |                |             |
| R320<br>R321 | 1-216-025-00<br>1-216-025-00 |               | 100 5%<br>100 5%  | 1/10W<br>1/10W       | X302<br>X303   | 1-567-505-11<br>1-767-127-11 | OSCILLATOR, C<br>VIBRATOR, CER |                   |                |             |
| R322         | 1-216-025-00                 |               | 100 5%            | 1/10W                |                |                              | •                              |                   |                |             |
| R323         | 1-216-033-00                 | METAL GLAZE 2 | 220 5%            | 1/10W                | X1001          | 1-5/9-965-21                 | VIBRATOR, CRY                  | STALL             |                |             |
| R324         | 1-216-063-91                 |               | 3.9K 5%           | 1/10W                | ******         | *******                      | **********                     | ********          | ******         | *******     |
| R326<br>R327 | 1-216-025-00<br>1-216-025-00 |               | 100 5%<br>100 5%  | 1/10W<br>1/10W       |                | *A-1638-079-A                | C BOARD, COMP                  | LETE              |                |             |
| R328         | 1-216-129-00                 | METAL GLAZE   | 2.2M 5%           | 1/10W                |                |                              | **********                     |                   |                |             |
| R329         | 1-216-089-00                 |               | 47K 5%            | 1/10W                |                | < CAP                        | ACITOR >                       |                   |                |             |
| R330<br>R331 | 1-216-025-00<br>1-216-059-00 |               | 100 5%<br>2.7ጁ 5% | 1/10W<br>1/10W       | C702           | 1-102-115-00                 | CERAMIC                        | 560PF             | 10%            | 50V         |
| R332         | 1-216-035-00                 |               | 100 5%            | 1/10W                | C702           | 1-102-115-00                 |                                | 680PF             | 10%            | 50V         |
| R333         | 1-216-075-00                 | METAL GLAZE 1 | 12K 5%            | 1/10W                | C708           | 1-162-114-00                 |                                | 0.0047MF          |                | 2KV         |
| R334         | 1-216-041-00                 |               | 470 5%            | 1/10W                | C710<br>C712   | 1-107-652-11<br>1-102-116-00 |                                | 10MF<br>680PF     | 20%<br>10%     | 250V<br>50V |
| R335         | 1-208-806-11                 | METAL CHIP 1  | 10K 0.50          | % 1/10W              |                |                              |                                |                   |                |             |
| R336<br>R337 | 1-216-109-00<br>1-216-025-00 |               | 330K 5%<br>100 5% | 1/10W<br>1/10W       | C714<br>C717   | 1-126-967-11<br>1-102-114-00 |                                | 47MF<br>470PF     | 20%<br>10%     | 16V<br>50V  |
| R338         | 1-216-051-00                 |               | 1.2K 5%           | 5% 1/10W<br>5% 1/10W | C718           | 1-102-114-00                 | CERAMIC                        | 470PF             | 10%            | 50 <b>V</b> |
| R339         | 1-216-049-00                 | METAL GLAZE 1 | 1K 5%             |                      | C719<br>C722   | 1-102-114-00<br>1-101-880-00 |                                | 470PF<br>47PF     | 10%<br>5%      | 50V<br>50V  |
| R340         | 1-216-025-00                 | METAL GLAZE   | 100 5%            | 1/10W                |                | 7-101-000-00                 |                                |                   |                | 301         |
| R341         | 1-216-025-00                 | METAL GLAZE 1 | 100 5%            | 1/10W                | C723           | 1-101-880-00                 |                                | 47PF              | 5%             | 50V         |
| R342<br>R343 | 1-216-049-00<br>1-216-061-00 |               | 1K 5%<br>3.3K 5%  | 1/10W<br>1/10W       | C724           | 1-101-880-00                 | CERAMIC                        | 47PF              | 5%             | 50 <b>V</b> |
|              | <b></b>                      | '             | - · · · ·         |                      |                |                              |                                |                   |                |             |

Les composants identifies par une trame et une marque  $\underline{\Lambda}$  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and marked  $ilde{\mathbb{A}}$  are critical for safety. Replace only with the part number specified.

|                              | C                | D           | 2        |              | <b>D3</b> |
|------------------------------|------------------|-------------|----------|--------------|-----------|
| PART NO.                     | DESCRIPTION      | ON          |          |              | REMARK    |
| 1-249-408-11                 | CARBON           | 180         | 5%       | 1/4W         |           |
| 1-249-423-11<br>1-249-415-11 | CARBON<br>CARBON | 3.3K<br>680 | 5%<br>5% | 1/4W<br>1/4W |           |
| 1-247-807-31                 | CARBON           | 100         | 5%       | 1/4W         |           |
| 1-249-415-11                 | CARBON           | 680         | 5%       | 1/4W         |           |
| 1-216-486-00                 | METAL OXIDE      | 8.2K        | 5%       | 3W           | F         |
| 1-249-417-11<br>1-249-415-11 | CARBON<br>CARBON | 1K<br>680   | 5%<br>5% | 1/4W<br>1/4W |           |
| 1-202-549-00                 | SOLID            | 100         | 20%      | 1/2W         |           |
| 1-249-421-11                 | CARBON           | 2.2K        | 5%       | 1/4W         |           |
| 1-249-421-11                 | CARBON           | 2.2K        | 5%       | 1/4W         |           |
| 1-249-421-11<br>1-249-437-11 | CARBON<br>CARBON | 2.2K<br>47K | 5%<br>5% | 1/4W<br>1/4W |           |
| 1-249-417-11                 | CARBON           | 1K          | 5%       | 1/4W         |           |
| 1-249-435-11                 | CARBON           | 33K         | 5%       | 1/4W         |           |
|                              | IABLE RESISTOR   |             | ••       | -,           |           |
| 1-230-641-11                 | RES, ADJ, ME     | PAT. (21.A9 | TP 2 2   | w            |           |
| 1-241-656-21                 | RES, ADJ, ME     |             |          |              |           |
| ************                 | **********       | ******      | ****     | *****        | ******    |
| *A-1640-214-A                | D2 BOARD, COI    |             |          |              |           |
| < CAP                        | ACITOR >         |             |          |              |           |
| 1-126-967-11                 | ELECT            | 47MF        |          | 20%          | 50V       |
| 1-137-368-11                 | FILM             | 0.00471     | Œ        | 5%           | 50V       |
| 1-126-964-11                 | RLECT            | 10MF        |          | 20%          | 50V       |
| 1-137-366-11                 | FILM             | 0.00221     | Œ        | 5%           | 50V       |
| < CON                        | NECTOR >         |             |          |              |           |
| 1-573-299-21                 | CONNECTOR, BO    | DARD TO     | BOARI    | 10P          |           |
| *1-568-878-51                | PIN, CONNECTO    | OR 3P       |          |              |           |
| < DIO                        | DE >             |             |          |              |           |
| 8-719-110-17                 | DIODE RD10ES     | B2          |          |              |           |
| < IC                         | >                |             |          |              |           |
| 8-759-701-59                 | IC NJM78M09F     | A           |          |              |           |
| 8-759-603-37                 | IC M5216P        |             |          |              |           |
| < LIN                        | K IC >           |             |          |              |           |

| REF.NO.                              | PART NO.   | DESCRIPTION   |  | REMARK                               | REF.NO.                                   | PART NO.   | DESCRIPTIO                     | )N                                 |                      |                                      | REMARK                   |
|--------------------------------------|--|---|--|--------------------------------------|---|--|--------------------------------|------------------------------------|----------------------|--------------------------------------|--------------------------|
|                                      | < CON  | INECTOR >   |  |                                      | R729                                      | 1-249-408-11   | CARBON                         | 180                                | 5%                   | 1/4W                                 |                          |
| CN701<br>CN702<br>CN703              | 1-695-915-11   | PIN, CONNECTOR<br>TAB (CONTACT)<br>PIN, CONNECTOR                                       |  | 6P                                   | R731<br>R733<br>R734<br>R735<br>R736      | 1-249-423-11<br>1-249-415-11<br>1-247-807-31<br>1-249-415-11<br>1-216-486-00 | CARBON<br>CARBON<br>CARBON     | 3.3K<br>680<br>100<br>680<br>8.2K  | 5%<br>5%<br>5%       | 1/4W<br>1/4W<br>1/4W<br>1/4W<br>3W   | F                        |
| D701<br>D702<br>D706<br>D707<br>D708 | 8-719-991-33<br>8-719-991-33<br>8-719-991-33                                 | DIODE RD3.9ES-1<br>DIODE 188133T-<br>DIODE 188133T-<br>DIODE 188133T-<br>DIODE 188133T- | 17<br>17<br>17                                   |                                      | R739<br>R740<br>R741<br>R744<br>R745      | 1-249-417-11<br>1-249-415-11<br>1-202-549-00<br>1-249-421-11<br>1-249-421-11 | CARBON<br>SOLID<br>CARBON      | 1K<br>680<br>100<br>2.2K<br>2.2K   |                      | 1/4W<br>1/4W<br>1/2W<br>1/4W<br>1/4W |                          |
| D709<br>D710<br>D711<br>D714<br>D715 | 8-719-991-33<br>8-719-302-43<br>8-719-991-33                                 | DIODE 188133T-<br>DIODE 188133T-<br>DIODE EL1Z<br>DIODE 188133T-<br>DIODE 188133T-      | 17<br>17   |                                      | R746<br>R747<br>R748<br>R749              | 1-249-421-11<br>1-249-437-11<br>1-249-417-11<br>1-249-435-11                 | CARBON<br>CARBON<br>CARBON     | 2.2K<br>47K<br>1K<br>33K           | 5%<br>5%<br>5%<br>5% | 1/4W<br>1/4W<br>1/4W<br>1/4W         |                          |
| D716                                 |  | DIODE 188133T-  |  |                                      | 2007.01                                   |  | HABLE RESISTOR                 |                                    | ^ -                  |                                      |                          |
| D717<br>D718<br>D719                 | 8-719-991-33   | DIODE 188133T-7<br>DIODE 188133T-7<br>DIODE 188133T-7                                   | 17   |                                      | RV701<br>RV702                            |  | RES, ADJ, MET<br>RES, ADJ, MET |                                    |                      |                                      |                          |
| D720                                 |  | DIODE 188133T-  |  |                                      | ******                                    | ************   | ***********                    | ******                             | ****                 | *****                                | ******                   |
|                                      |  | SOCKET >  |  |                                      |   | *A-1640-214-A  | D2 BOARD, COB                  |                                    |                      |                                      |                          |
| <b>J701</b> .                        | <b>▲ 1-526-990-22</b>  | •   |  |                                      |   | < CAP  | ACITOR >                       |                                    |                      |                                      |                          |
| L704                                 | < COI<br>1-408-609-41<br>< TRI   |   | 33UH   |                                      | C1801<br>C1803<br>C1804<br>C1807          | 1-126-967-11<br>1-137-368-11<br>1-126-964-11<br>1-137-366-11                 | FILM<br>ELECT                  | 47MF<br>0.00471<br>10MF<br>0.00221 |                      | 20%<br>5%<br>20%<br>5%               | 50V<br>50V<br>50V<br>50V |
| Q702                                 |  | TRANSISTOR 2SC  | 2785-HFE   |                                      | 02007                                     |  | INECTOR >                      | *****                              | _                    | ••                                   | •••                      |
| 0703<br>0704<br>0705<br>0706         | 8-729-906-70<br>8-729-200-17<br>8-729-119-78                                 | TRANSISTOR BF8* TRANSISTOR 2SA: TRANSISTOR 2SC: TRANSISTOR BF8*                         | 71-127<br>L091-0<br>2785- <b>HFE</b>             |                                      | CN1801<br>CN1803                          | 1-573-299-21<br>*1-568-878-51  | CONNECTOR, BO<br>PIN, CONNECTO |                                    | BOARI                | 10P                                  |                          |
| Q707<br>Q708                         |  | TRANSISTOR 2SAT   |  |                                      | D1802                                     | < DIO<br>8-719-110-17  | DIODE RD10ESE                  | 32                                 |                      |                                      |                          |
| 0709<br>0710                         | 8-729-200-17   | TRANSISTOR BF8'   | L091-0   |                                      |   | < IC   | >                              |                                    |                      |                                      |                          |
| Q711                                 |  | TRANSISTOR 2SAS<br>SISTOR >   | 933AS-QRT  |                                      | IC1801<br>IC1802                          | 8-759-701-59<br>8-759-603-37   | IC NJM78M09FA<br>IC M5216P     | ١                                  |                      |                                      |                          |
| R704                                 | 1-216-486-00   |   | 3.2K 5%  | 3W F                                 |   | < LIN  | TK IC >                        |                                    |                      |                                      |                          |
| R705<br>R706                         | 1-260-103-11<br>1-247-815-91   | CARBON  | 2.2K 5%<br>220 5%                                | 1/2W<br>1/4W                         | JW1802 ∠                                  | <b>↑ 1-532-605-91</b>  | LINK, IC 0.42                  | (ICP-                              | <b>F</b> 10)         |                                      |                          |
| R707<br>R709                         | 1-249-408-11<br>1-202-844-00   |   | 180 5%<br>330% 10%                               | 1/4W<br>1/2W                         |   | < RES  | SISTOR >                       |                                    |                      |                                      |                          |
| R711<br>R712<br>R714<br>R715<br>R716 | 1-249-423-11<br>1-260-103-11<br>1-216-486-00<br>1-249-417-11<br>1-247-815-91 | CARBON 2<br>METAL OXIDE 6<br>CARBON 3   | 3.3K 5%<br>2.2K 5%<br>3.2K 5%<br>LK 5%<br>220 5% | 1/4W<br>1/2W<br>3W F<br>1/4W<br>1/4W | R1807<br>R1809<br>R1810<br>R1811<br>R1812 | 1-247-883-00<br>1-249-429-11<br>1-249-429-11<br>1-249-429-11<br>1-249-429-11 | CARBON<br>CARBON<br>CARBON     | 150K<br>10K<br>10K<br>10K<br>10K   |                      | 1/4W<br>1/4W<br>1/4W<br>1/4W<br>1/4W |                          |
| R717                                 | 1-249-408-11<br>1-202-814-11   |   | 180 5%<br>33K 10%                                | 1/4W<br>1/2W                         | ******                                    | ************   |                                | ******                             | ****                 | *****                                | ******                   |
| R718<br>R720<br>R722                 | 1-249-423-11<br>1-202-848-00   | CARBON SOLID  | 3.3K 5%<br>580K 10%                              | 1/4W<br>1/2W                         |   | *A-1640-235-A  | D3 BOARD, COM                  |                                    |                      |                                      |                          |
| R723                                 | 1-249-417-11   |   | LK 5%  | 1/4W                                 |   | < CAP  | PACITOR >                      |                                    |                      |                                      |                          |
| R724<br>R726<br>R727<br>R728         | 1-202-846-00<br>1-260-103-11<br>1-247-815-91<br>1-216-350-11                 | CARBON CARBON   | 170K 10%<br>2.2K 5%<br>220 5%<br>1.2 5%          | 1/2W<br>1/2W<br>1/4W<br>1W F         | C2802                                     | 1-126-965-11   | BLECT                          | 22MF                               |                      | 20%                                  | 50 <b>V</b>              |
|                                      |  |   |  |                                      | 1   |  |                                |                                    |                      |                                      |                          |

D3 D

Les composants identifies par une trame et une marque  $\underline{\Lambda}$  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and marked  $\triangle$  are critical for safety. Replace only with the part number specified.

| REF.NO.          | PART NO.                       | <u>DESCRIPTION</u> <u>REMARK</u> |                   |                    |              | REF.NO.              | PART NO.                                     | DESCRIPT           | ION                         |                   | REMARK            |
|------------------|--------------------------------|----------------------------------|-------------------|--------------------|--------------|----------------------|--|--------------------|-----------------------------|-------------------|-------------------|
| CN2801           | < CON                          | INECTOR >                        | FOD 3D            |                    |              | C614<br>C615<br>C616 | 1-128-526-11<br>1-111-067-11<br>1-111-067-11 | RLECT              | 100MF<br>0.001MF<br>0.001MF | 20%<br>20%<br>20% | 25V<br>25V<br>25V |
| CN2802<br>CN2803 | *1-580-798-11<br>*1-580-798-11 | CONNECTOR P                      | IN (DY) 6P        |                    |              | C617<br>C618         | 1-128-339-51<br>1-136-165-00                 | ELECT              | 2200MF<br>0.1MF             | 20%<br>5%         | 16V<br>50V        |
|                  | < DIC                          | ODE >                            |                   |                    |              | C619<br>C620         | 1-102-228-00<br>1-102-228-00                 |                    | 470PF<br>470PF              | 10%<br>10%        | 500V<br>500V      |
| D2801            | 8-719-991-33                   | DIODE 188133                     | BT-77             |                    |              | C621<br>C622         | 1-136-165-00<br>1-107-925-11                 | FILM               | 0.1MF<br>1.0MF              | 5%<br>20%         | 50V<br>100V       |
|                  | < TRI                          | ANSISTOR >                       |                   |                    |              | C623                 | 1-104-666-11                                 |                    | 220MF                       | 20%               | 25V               |
| Q2801            | 8-729-119-78                   | TRANSISTOR 2                     | 2SC2785-HFE       |                    |              | C624<br>C625         | 1-136-165-00<br>1-126-967-11                 |                    | 0.1MF<br>47MF               | 5%<br>20%         | 50V<br>50V        |
|                  | < RES                          | SISTOR >                         |                   |                    |              | C626<br>C628         | 1-104-666-11<br>1-126-964-11                 | ELECT              | 220MF<br>10MF               | 20%<br>20%        | 25V<br>50V        |
| R2801            | 1-249-421-11                   | CARBON                           | 2.2K 5%           | 1/4W               | •            | C629                 | 1-111-097-11                                 |                    | 2200MF                      | 20%               | 35V               |
|                  | < REI                          | LAY >                            |                   |                    |              | C630<br>C631         | 1-111-097-11<br>1-126-965-11                 |                    | 2200MF<br>22MF              | 20%<br>20%        | 35V<br>50V        |
| RY2801           | 1-755-068-11                   | RELAY                            |                   |                    |              | C632<br>C633 A       | 1-104-666-11<br>1-107-563-12                 |                    | 220MF<br>0.1MF              | 20%<br>20%        | 25V<br>300V       |
|                  | < CO                           | IL >                             |                   |                    |              | C634 A               | 1-107-563-12                                 |                    | 0.1MF                       | 20%               | 300V              |
| T2801            | 1-411-981-11                   | COIL, CHOKE                      | 245UH             |                    |              | C635 A<br>C636 A     | 1-107-563-12<br>1-113-890-51                 |                    | 0.1MF<br>0.0022MF           | 20%<br>20%        | 300V<br>250V      |
| ******           | ***********                    | **********                       | ********          | ******             | ******       | C638<br>C640         | 1-136-203-11<br>1-106-220-00                 | FILM               | 0.01MF<br>0.1MF             | 10%<br>10%        | 630V<br>100V      |
|                  | *A-1642-190-A                  | D BOARD, COL                     |                   |                    |              | C644                 | 1-137-043-11                                 |                    | 0.0047MF                    | 10%               | 400V              |
|                  | 4-201-023-01                   | SDACED THS                       | TT.ATTWG          |                    |              | C647<br>C651         | 1-162-116-00<br>1-102-228-00                 |                    | 680PF<br>470PF              | 10%<br>10%        | 2KV<br>500V       |
|                  | 4-202-373-01                   |                                  |                   |                    |              | C800<br>C801         | 1-137-368-11<br>1-137-368-11                 | FILM               | 0.0047MF<br>0.0047MF        | 5%<br>5%          | 50V<br>50V        |
|                  | < CAI                          | PACITOR >                        |                   |                    |              | C802                 | 1-102-074-00                                 |                    | 0.001MF                     | 10%               | 50V               |
| C502<br>C503     | 1-102-824-00<br>1-136-165-00   |                                  | 470PF<br>0.1MF    | 5%<br>5%           | 50V<br>50V   | C804<br>C805         | 1-136-165-00<br>1-136-207-11                 |                    | 0.1MF<br>0.047MF            | 5%<br>10%         | 50V<br>250V       |
| C504             | 1-102-824-00                   | CERAMIC                          | 470PF             | 5%                 | 50 <b>V</b>  | C806                 | 1-104-999-11                                 | MYLAR              | 0.1MF                       | 10%               | 200V              |
| C506<br>C507     | 1-126-941-11<br>1-109-953-11   |                                  | 470MF<br>2.2MF    | 20%<br>20%         | 25V<br>50V   | C807<br>C808         | 1-136-109-00<br>1-136-104-00                 |                    | 0.68MF<br>0.16MF            | 5%<br>5%          | 200∀<br>200∀      |
| C509             | 1-136-165-00                   |                                  | 0.1MF             | 5%                 | 50V          | C810                 | 1-107-683-11                                 |                    | 2.2MF                       | 0                 | 250V              |
| C510<br>C511     | 1-126-969-11<br>1-136-202-11   | FILM                             | 220MF<br>0.33MF   | 20%<br>5%          | 50V<br>63V   | C811<br>C812         | 1-102-212-00<br>1-136-540-11                 | FILM               | 820PF<br>0.82MF             | 10%<br>5%         | 500V<br>200V      |
| C513<br>C514     | 1-106-220-00<br>1-136-165-00   |                                  | 0.1MF<br>0.1MF    | 10%<br>5%          | 100V<br>50V  | C813<br>C814         | 1-129-722-00<br>1-136-084-00                 |                    | 0.047MF<br>0.0145MF         | 10%<br>3%         | 630V<br>2KV       |
| C515             | 1-126-941-11                   |                                  | 470MF             | 20%                | 25V          | C815                 | 1-137-047-11                                 |                    | 0.01MF                      | 10%               | 400V              |
| C517             | 1-126-941-11                   | ELECT                            | 470MF             | 20%                | 25V          | C816                 | 1-162-134-11                                 | CERAMIC            | 470PF                       | 10%               | 2KV               |
| C518<br>C519     | 1-102-228-00<br>1-102-228-00   | CERAMIC                          | 470PF<br>470PF    | 10%<br>10%         | 500V<br>500V | C817<br>C818         | 1-162-116-00<br>1-162-134-11                 |                    | 680PF<br>470PF              | 10%<br>10%        | 2KV<br>2KV        |
| C520             | 1-126-941-11                   | ELECT                            | 470MF             | 20%                | 25V          | C819                 | 1-136-208-11                                 | FILM               | 0.068MIF                    | 10%               | 250V              |
| C521<br>C522     | 1-107-698-11<br>1-126-964-11   |                                  | 10MF<br>10MF      | 20%<br>20%         | 25V<br>50V   | C820<br>C821         | 1-102-114-00<br>1-162-114-00                 |                    | 470PF<br>0.0047MF           | 10%               | 50V<br>2KV        |
| C523             | 1-136-165-00<br>1-113-890-51   | FILM                             | 0.1MF<br>0.0022MF | 5%                 | 50V<br>250V  | C822<br>C824         | 1-107-662-11<br>1-123-024-21                 | ELECT              | 22MF<br>33MF                | 20%               | 250V<br>160V      |
| C601 A           |                                |                                  | 0.0047MF          | 20%                | 250V<br>250V | C829                 | 1-124-902-00                                 | ELECT              | 0.47MF                      | 20%               | 50V               |
| C602 A           |                                |                                  | 0.0047MF          | 200                | 250V         | C830                 | 1-124-902-00                                 | ELECT              | 0.47MF                      | 20%               | 50V               |
| C603<br>C604     | 1-125-555-11<br>1-126-968-11   |                                  | 330MF<br>100MF    | 20%<br>20%         | 400♥<br>50♥  | C832<br>C834         | 1-124-903-11<br>1-128-551-11                 | ELECT<br>ELECT     | 1MF<br>22MF                 | 20%<br>20%        | 50V<br>25V        |
| C605<br>C606     | 1-107-929-11<br>1-162-318-11   | ELECT<br>CERAMIC                 | 10MF<br>0.001MF   | 20 <b>%</b><br>10% | 100V<br>500V | C835<br>C836         | 1-162-318-11<br>1-162-117-00                 | CERAMIC<br>CERAMIC | 0.001MF<br>100PF            | 10%<br>10%        | 500V<br>500V      |
| C607             | 1-104-666-11                   |                                  | 220MF             | 20%                | 25V          | C837                 | 1-102-978-00                                 | CERAMIC            | 220PF                       | 5%                | 50V               |
| C608<br>C611     | 1-109-880-11<br>1-102-228-00   | FILM<br>CERAMIC                  | 0.0015MF<br>470PF | 3%<br>10%          | 2KV<br>500V  | C838<br>C839         | 1-102-228-00<br>1-136-207-11                 | CERAMIC<br>FILM    | 470PF<br>0.047MF            | 10%<br>10%        | 500V<br>250V      |
| C612             | 1-111-160-91                   | ELECT                            | 22MF              | 20%                | 100V         | C845                 | 1-101-880-00                                 | CERAMIC            | 47PF<br>100PF               | 5%                | 50V               |
| C613             | 1-124-347-00                   | ELECT                            | 100MF             | 20%                | 160V         | C901                 | 1-101-810-00                                 | CERAMIC            | TOOPE                       | 5%                | 500V              |

Les composants identifies par une trame et une marque  $\underline{\Lambda}$  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and marked  $ilde{\mathbb{A}}$  are critical for safety. Replace only with the part number specified.



| REF.NO.                                   | PART NO.   | DESCRIPTION   |  |                                | REMARK                            | REF.NO.                                   | PART NO.                                     | DESCRIPTION   | REMARK |
|---|--|---|--|--------------------------------|-----------------------------------|---|--|---|--------|
| C902<br>C903<br>C904<br>C905<br>C906      | 1-137-372-11<br>1-137-372-11<br>1-104-665-11<br>1-126-964-11<br>1-126-964-11   | FILM<br>ELECT<br>ELECT  | 0.022MF<br>0.022MF<br>100MF<br>10MF<br>10MF    | 5%<br>5%<br>20%<br>20%<br>20%  | 50V<br>50V<br>25V<br>50V<br>50V   | D609<br>D610<br>D611<br>D612<br>D613      | 8-719-058-38<br>8-719-046-76                 | DIODE RU4DS DIODE AU-01Z-V1 DIODE FMM-G12S DIODE RU-3YX-V1 DIODE FMM-G12S   |        |
| C907<br>C908<br>C911<br>C913<br>C914      | 1-126-964-11<br>1-126-964-11<br>1-126-964-11<br>1-101-810-00<br>1-101-004-00   | ELECT<br>ELECT<br>CERAMIC   | 10MF<br>10MF<br>10MF<br>100PF<br>0.01MF        | 20%<br>20%<br>20%<br>5%        | 50V<br>50V<br>50V<br>500V<br>50V  | D614<br>D615<br>D616<br>D617<br>D618      | 8-719-046-75<br>8-719-110-03<br>8-719-991-33 | DIODE FMN-G128 DIODE EU-1-V1 DIODE RD7.5ESB2 DIODE 188133T-77 DIODE 188133T-77  |        |
| C915<br>C1200<br>C1201<br>C1202<br>C1203  | 1-136-166-00<br>1-136-165-00<br>1-136-173-00<br>1-136-173-00<br>1-136-169-00   | PILM<br>PILM<br>PILM  | 0.12MF<br>0.1MF<br>0.47MF<br>0.47MF<br>0.22MF  | 5%<br>5%<br>5%<br>5%           | 50V<br>50V<br>50V<br>50V<br>50V   | D619<br>D620<br>D622<br>D625<br>D626      | 8-719-991-33<br>8-719-923-60<br>8-719-991-33 | DIODE 188133T-77 DIODE 188133T-77 DIODE MTZJ-T-77-9.1A DIODE 188133T-77 DIODE AU-01Z-V1   |        |
| C1204<br>C1205<br>C1206<br>C1207<br>C1208 | 1-136-169-00<br>1-101-005-00<br>1-101-005-00<br>1-126-933-11<br>1-126-963-11   | CERAMIC<br>CERAMIC<br>ELECT   | 0.22MF<br>0.022MF<br>0.022MF<br>100MF<br>4.7MF | 5%<br>20%<br>20%               | 50V<br>50V<br>50V<br>16V<br>50V   | D631<br>D800<br>D801<br>D802<br>D803      | 8-719-991-33<br>8-719-991-33                 | DIODE RD6.2ES-B2<br>DIODE 188133T-77<br>DIODE 188133T-77<br>DIODE 188133T-77<br>DIODE GP08D   |        |
| C1209<br>C1212<br>C1213<br>C1214<br>C1215 | 1-126-963-11<br>1-162-318-11<br>1-162-318-11<br>1-126-933-11<br>1-136-173-00   | CERAMIC<br>CERAMIC<br>ELECT   | 4.7MF<br>0.001MF<br>0.001MF<br>100MF<br>0.47MF | 20%<br>10%<br>10%<br>20%<br>5% | 50V<br>500V<br>500V<br>16V<br>50V | D807<br>D808<br>D809<br>D810<br>D812      | 8-719-302-43                                 | DIODE GP08D<br>DIODE RGP02-20EL-6394  |        |
| C1216<br>C1217<br>C1218                   | 1-137-366-11<br>1-137-366-11<br>1-126-935-11<br>< COM                          | FILM  | 0.0022MF<br>0.0022MF<br>470MF                  | 5%<br>5%<br>20%                | 50V<br>50V<br>16V                 | D815<br>D817<br>D901                      | 8-719-030-11<br>*4-203-258-01                | DIODE GP08D DIODE RD5.1ES-B2 DIODE SLA-570RT3F HOLDER,LED ;D901 DIODE MTZJ-T-77-9.1A  |        |
| CN601                                     | 1-508-786-11<br>1-508-765-11<br>1-580-844-11<br>*1-580-798-11<br>*1-573-296-21 | PIN, CONNECTO<br>PIN, CONNECTO<br>CONNECTOR PIN                                 | OR (5MM PITO<br>OR (POWER)<br>N (DY) 6P        | Œ) 3P                          |                                   | D903<br>D904<br>D905<br>D906<br>D1201     | 8-719-923-60<br>8-719-923-60<br>8-719-923-60 | DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-79.1A DIODE MTZJ-T-77-9.1A DIODE MTZJ-T-77-9.1A  |        |
| CN803<br>CN804                            | 1-695-915-21   | TAB (CONTACT)<br>PIN, CONNECTO  | )<br>DD 6D                                     |                                |                                   |   | < FUS  | E >   |        |
| CN807<br>CN900<br>CN902                   | 1-568-878-51<br>1-568-678-11   | PIN, CONNECTO<br>TERMINAL BLOC<br>CONNECTOR, BO                                 | OR 3P<br>OK, S 3P                              | RD 50P                         |                                   | F601 A                                    |  | FUSE (H.B.C.) 5A/250V<br>HOLDER, FUSE ;F601   |        |
| CN1401                                    | *1-568-880-51  | PIN, CONNECTO   | OR 5P  |                                |                                   |   | < FER  | RITE BEAD >   |        |
| CN1407<br>CN1408<br>CN1420                | 1-564-511-11<br>*1-568-879-11  | PLUG, CONNECTO<br>PIN, CONNECTO<br>PIN, CONNECTO                                | FOR 8P<br>OR 4P                                |                                |                                   | FB600<br>FB601<br>FB602<br>FB604<br>FB605 | 1-410-397-21<br>1-410-397-21<br>1-410-396-41 | FERRITE BEAD INDUCTOR 1.1UE<br>FERRITE BEAD INDUCTOR 1.1UE<br>FERRITE BEAD INDUCTOR 1.1UE<br>FERRITE BEAD INDUCTOR 0.45UE<br>FERRITE BEAD INDUCTOR 0.45UE |        |
| DEAA                                      |  |   | 1 70   |                                |                                   | FB606                                     |  |   |        |
| D500<br>D502<br>D503<br>D504<br>D505      | 8-719-979-85<br>8-719-979-85<br>8-719-991-33                                   | DIODE RD5.1Es<br>DIODE EGP20G<br>DIODE EGP20G<br>DIODE 1SS1337<br>DIODE MTZJ-3. | r-77   |                                |                                   | FB607<br>FB608<br>FB800                   | 1-410-397-21<br>1-410-396-41<br>1-410-396-41 | FERRITE BEAD INDUCTOR 1.1UE<br>FERRITE BEAD INDUCTOR 1.1UE<br>FERRITE BEAD INDUCTOR 0.45UE<br>FERRITE BEAD INDUCTOR 0.45UE                                |        |
| D506                                      |  | DIODE 1881337   |  |                                |                                   | TOEAA                                     | < IC   |   |        |
| D507<br>D600                              | 8-719-510-53   | DIODE RD5.1ES DIODE D4SB601   |  |                                |                                   | IC500<br>IC600                            |  | IC STR-S6709  |        |
| D601<br>D603                              |  | DIODE EM1-V1<br>DIODE RD6.8ES   | 3-B2   |                                |                                   | IC601 A<br>IC602<br>IC603                 | 8-749-920-61                                 | IC TLP721 (D4-) IC SE-135N IC µPC2405HF   |        |
| D604<br>D605                              | 8-719-046-75<br>8-719-302-43   | DIODE EU-1-VI   | L  |                                |                                   | IC604                                     | 8-759-510-52                                 | ·   |        |
| D605<br>D606<br>D607                      | 8-719-302-43   |   | 71   |                                |                                   | IC604<br>IC606<br>IC800                   |  | IC LM2940T-9.0  |        |
| D608                                      | 8-719-302-06   |   |  |                                |                                   | IC900                                     |  | RAY CATCHER ELEMENT SBX1790-5   | 1      |
|   |  |   |  |                                |                                   |   |  |   |        |



Les composants identifies par une trame et une marque  $\underline{\Lambda}$  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and marked  $\triangle$  are critical for safety. Replace only with the part number specified.

| REF.NO.         | PART NO.                     | DESCRIPTION                        | REMARK             | REF.NO.      | PART NO.                     | DESCRIPTIO  | N            |           |              | REMARK |
|-----------------|------------------------------|------------------------------------|--------------------|--------------|------------------------------|-------------|--------------|-----------|--------------|--------|
| IC901<br>IC1200 | 8-749-012-12<br>8-759-250-68 | IC IS474<br>IC TDA7264             |                    |              | < RES                        | SISTOR >    |              |           |              |        |
| IC1201          | 8-759-502-21                 |                                    |                    | R500         | 1-215-457-00                 | METAL       | 33K          | 1%        | 1/4W         |        |
|                 |                              |                                    |                    | R502         | 1-249-421-11                 |             | 2.2K         | 5%        | 1/4W         |        |
|                 | < JAC                        | CK SOCKET >                        |                    | R503         | 1-249-429-11                 |             | 10K          | 5%<br>1%  | 1/4W         |        |
| J900            | 1-764-606-11                 | JACK                               |                    | R504<br>R505 | 1-215-457-00<br>1-249-382-11 |             | 33K<br>1.2   | 5%        | 1/4W<br>1/4W | F      |
| J1200           | 1-770-218-11                 |                                    |                    |              |                              |             |              | ••        | -,           | -      |
|                 |                              |                                    |                    | R507         | 1-215-888-00                 |             | 220          | 5%        | 2W           | F      |
|                 | < CO1                        | II >                               |                    | R508<br>R509 | 1-216-371-00                 |             | 1.5<br>0.47  | 5%<br>5%  | 2W<br>1/4W   | F<br>F |
| L502            | 1-412-519-11                 | INDUCTOR                           | 3.3UE              | R510         | 1-249-443-11<br>1-249-443-11 |             | 0.47         | 5%<br>5%  | 1/4W         | F      |
| L503            | 1-412-519-11                 |                                    | 3.3UH              | R520         | 1-215-457-00                 |             | 33K          | 1%        | 1/4W         | -      |
| L609            | 1-412-533-21                 |                                    | 470E               |              |                              |             |              |           |              |        |
| L611<br>L612    | 1-412-527-11<br>1-412-522-41 | INDUCTOR<br>INDUCTOR               | 15UH<br>5.6UH      | R521<br>R522 | 1-215-457-00<br>1-247-863-91 |             | 33K<br>22K   | 1%<br>5%  | 1/4W<br>1/4W |        |
| 11017           | 1-414-344-41                 | INDUCTOR                           | 3.00 <u>H</u>      | R523         | 1-247-863-91                 |             | 22K          | 5%        | 1/4W         |        |
| L613            | 1-412-522-41                 | INDUCTOR                           | 5.6UH              | R524         | 1-249-425-11                 |             | 4.7K         |           | 1/4W         |        |
| L615            | 1-412-529-11                 | INDUCTOR                           | 22UH               | R525         | 1-249-425-11                 | CARBON      | 4.7K         | 5%        | 1/4W         |        |
| L616<br>L801    | 1-412-533-21<br>1-459-111-00 | INDUCTOR COIL, DRAM CORE           | 47UH               | R526         | 1-249-421-11                 | CARBON      | 2.2K         | 5%        | 1/4W         |        |
| L802            | 1-459-104-00                 | COIL, WITH CORE                    |                    | R600         | 1-216-490-11                 |             | 39K          | 5%        | 3W           | F      |
|                 | - 100 -001 00                |                                    |                    | R601         | 1-249-417-11                 |             | 1K           | 5%        | 1/4W         | •      |
| <b>L803</b>     |                              | COIL, AIR-CORE                     |                    | R602         | 1-215-473-00                 |             |              | 1%        | 1/4W         |        |
| L804            | 1-429-306-11                 |                                    | RIZONTAL LINEARITY | R603         | 1-215-898-11                 | METAL OXIDE | 10K          | 5%        | 2W           | F      |
| L805<br>L806    | 1-412-527-11                 | COIL, CHOKE 3.3 INDUCTOR           | 150H               | R604         | 1-249-420-11                 | CARBON      | 1.8K         | 5%        | 1/4W         |        |
| L809            | 1-412-533-21                 |                                    | 47UE               | R605         | 1-216-362-11                 |             | 0.27         | 5%        | 2W           | F      |
|                 |                              |                                    |                    | R607         | 1-216-421-11                 |             | 12           | 5%        | 1W           | F      |
| L811            |                              | COIL, CHOKE 150                    |                    | R608         | 1-216-365-00                 |             | 0.47         | 5%        | 2W           | F      |
| L813<br>L901    | 1-412-552-11<br>1-408-603-31 | INDUCTOR<br>INDUCTOR               | 2.2MMH<br>10UH     | R610         | 1-215-427-00                 | METAL       | 1.8K         | TÆ        | 1/4W         |        |
| L902            | 1-408-603-31                 |                                    | 10UH               | R611         | 1-216-354-11                 | METAL OXIDE | 2.7          | 5%        | 1W           | F      |
| L903            | 1-408-409-00                 | INDUCTOR                           | 10 <b>UE</b>       | R612         | 1-249-428-11                 | CARBON      | 8.2K         | 5%        | 1/4W         |        |
|                 | 1 400 400 00                 | TUDUGUAD                           | 1000               | R613         | 1-249-417-11                 |             | 1K           | 5%        | 1/4W         |        |
| L904            | 1-408-409-00                 | INDUCTOR                           | 100H               | R614<br>R615 | 1-215-877-11<br>1-249-435-11 |             | 22K<br>33K   | 5%<br>5%  | 1W<br>1/4W   | F      |
|                 | < IC                         | LINK >                             |                    | MULD         | 1-217-133-11                 | Chabon      | 33A          | 5.0       | ±/ ***       |        |
|                 |                              |                                    |                    | R616         | 1-215-471-00                 |             | 120K         | 1%        | 1/4W         | _      |
|                 |                              | LINK, IC 2.7A (                    |                    | R617<br>R618 | 1-215-901-00<br>1-247-863-91 |             | 33K<br>22K   | 5%<br>5%  | 2W<br>1/4W   | F      |
|                 |                              | LINK, IC 2.7A (<br>LINK, IC 2.7A ( |                    | R619         | 1-216-425-11                 |             | 56           | 5%        | 1W           | F      |
|                 |                              | LINK, IC 2.7A                      |                    | R620         | 1-260-131-11                 |             |              | 5%        | 1/2W         | =      |
|                 |                              | war and                            |                    | - cos        |                              |             |              |           | 4            | _      |
|                 | < TK4                        | AMSISTOR >                         |                    | R621<br>R622 | 1-216-425-11<br>1-249-437-11 |             | 56<br>47K    | 5%<br>5%  | 1W<br>1/4W   | F      |
| Q501            | 8-729-119-78                 | TRANSISTOR 2SC2                    | 785-HFE            | R623         | 1-249-429-11                 |             | 10K          | 5%        | 1/4W         |        |
| Q502            | 8-729-119-76                 | TRANSISTOR 2SA1                    |                    | R624         | 1-249-393-11                 |             | 10           | 5%        | 1/4W         | F      |
| Q503            | 8-729-900-89                 | TRANSISTOR DTC1                    |                    | R625         | 1-249-434-11                 | CARBON      | 27K          | 5%        | 1/4W         |        |
| Q601<br>Q602    | 8-729-025-04<br>8-729-320-28 | TRANSISTOR 2SC3 TRANSISTOR 2SA1    |                    | R626         | 1-249-430-11                 | CARBON      | 12K          | 5%        | 1/4W         |        |
| Hoon            | J , EJ - JEV - AU            |                                    |                    | R627         | 1-216-347-11                 |             | 0.68         | 5%        | 1W           | F      |
| Q603            | 8-729-805-05                 | TRANSISTOR 2SC3                    |                    | R628         | 1-249-415-11                 | CARBON      | 680          | 5%        | 1/4W         | F      |
| Q604            | 8-729-024-35                 | TRANSISTOR 2SC2                    |                    | R629 A       | 1-244-945-91                 |             | 1M           | 5%        | 1/2W         |        |
| Q605<br>Q606    | 8-729-119-78<br>8-729-900-65 | TRANSISTOR 2SC2 TRANSISTOR DTA1    |                    | R630 🛦       | 1-218-265-21                 | METAL       | 8.2M         | 5%        | 1W           |        |
| Q607            |                              | TRANSISTOR 2SC2                    |                    | R631 🛦       | 1-205-949-11                 | WIREWOUND   | 1.8          | 5%        | 10W          |        |
|                 |                              |                                    |                    | R632         | 1-247-807-31                 |             | 100          | 5%        | 1/4W         |        |
| Q800<br>Q801    | 8-729-119-78<br>8-729-017-06 | TRANSISTOR 2SC2<br>TRANSISTOR 2SC4 |                    | R633<br>R634 | 1-247-807-31<br>1-249-397-11 |             | 100<br>22    | 5%<br>5%  | 1/4W<br>1/4W | 7      |
| Q801<br>Q802    | 8-729-017-06                 |                                    |                    | R635         | 1-249-437-11                 |             | 47K          | აგ<br>5%  | 1/4W         |        |
| Q803            | 8-729-119-80                 | TRANSISTOR 2SC2                    | 688-LK             |              |                              |             |              |           |              |        |
| Q804            | 8-729-900-89                 | TRANSISTOR DTC1                    | 44ES               | R636         | 1-249-417-11                 |             | 1K           | 5%        | 1/4W         |        |
| Q805            | 8-729-900-89                 | TRANSISTOR DTC1                    | AARQ               | R637<br>R638 | 1-247-815-91<br>1-247-863-91 |             | 220<br>22K   | 5%<br>5%  | 1/4W<br>1/4W |        |
| Q805<br>Q900    | 8-729-119-78                 |                                    |                    | R639         | 1-215-427-00                 |             | 1.8K         |           | 1/4W         |        |
| Q1200           |                              | TRANSISTOR 2SC2                    |                    | R642 A       | 1-205-949-11                 |             | 1.8          | 5%        | 10W          |        |
| Q1201           | 8-729-900-74                 | TRANSISTOR DTC1                    | 43TS               |              |                              |             |              |           |              |        |
| Q1202           | 8-729-900-80                 | TRANSISTOR DTC1                    | 14ES               | R645<br>R646 | 1-249-422-11<br>1-249-377-11 |             | 2.7K<br>0.47 |           | 1/4W<br>1/4W | 7      |
| Q1203           | 8-729-900-74                 | TRANSISTOR DTC1                    | 43TS               | R647         | 1-249-377-11                 |             | 0.47         | 5₹<br>10% | 1/2W         |        |
| Q1204           |                              | TRANSISTOR DTC1                    |                    | R649         | 1-249-426-11                 |             | 5.6K         |           | 1/4W         |        |
|                 |                              |                                    |                    |              |                              |             |              |           |              |        |

Les composants identifies par une trame et une marque  $\underline{\Lambda}$  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components identified by shading and marked  $ilde{\mathbb{A}}$  are critical for safety. Replace only with the part number specified.



| REF.NO.       | PART NO.                     | DESCRIPTIO  | N                |          |              | REMARK | REF.NO.        | PART NO.                     | DESCRIPTI       | ON                 |              | REMARK      |
|---------------|------------------------------|-------------|------------------|----------|--------------|--------|----------------|------------------------------|-----------------|--------------------|--------------|-------------|
| R800          | 1-249-421-11                 | CARBON      |                  | 5%       | 1/4W         |        | R1201          | 1-249-434-11                 | CARBON          |                    | 1/4W         |             |
| R802          | 1-249-429-11                 |             | 10K              | 5%       | 1/4W         |        | R1202          | 1-249-389-11                 |                 | 4.7 5%             | 1/4W         |             |
| R803          | 1-249-423-11                 |             | 3.3K             |          | 1/4W         |        | R1202          | 1-249-421-11                 |                 | 2.2K 5%            | 1/4W         | •           |
| R805          | 1-247-863-91                 |             | 22K              | 5%       | 1/4W         |        | R1204          | 1-249-421-11                 |                 | 2.2K 5%            | 1/4W         |             |
| R809          | 1-247-890-00                 |             | 330K             |          | 1/4W         |        | R1205          | 1-249-428-11                 |                 | 8.2K 5%            | 1/4W         |             |
| R812          | 1-249-421-11                 | CARBON      | 2.2K             | 5%       | 1/4W         |        | R1206          | 1-249-428-11                 | CARBON          | 8.2K 5%            | 1/4W         |             |
| R813<br>R814  | 1-215-867-00<br>1-249-411-11 |             | 470<br>330       | 5%<br>5% | 1W<br>1/4W   | F      | R1207<br>R1208 | 1-249-413-11<br>1-212-849-00 |                 | 470 5%<br>4.7 5%   | 1/4W<br>1/4W | 7           |
| R816          | 1-216-481-11                 |             | 1.2K             |          | 3W           | F      | R1200          | 1-212-849-00                 |                 | 4.7 5%             | 1/4W         |             |
| R817          | 1-216-481-11                 |             | 1.2K             | 5%       | 3W           | F      | R1210          | 1-249-413-11                 | CARBON          | 470 5%             | 1/4W         | •           |
| R818          | 1-215-883-11                 | METAL OXIDE | 33               | 5%       | 2W           | P      | R1211          | 1-249-424-11                 | CARBON          | 3.9K 5%            | 1/4W         |             |
| R819          | 1-216-345-11                 |             | 0.47             |          | 1W           | F      | R1212          | 1-249-424-11                 |                 | 3.9K 5%            | 1/4W         |             |
| R820<br>R821  | 1-249-403-11<br>1-215-909-11 |             | 68<br><b>4</b> 7 | 5%<br>5% | 1/4W<br>3W   | F      | R1213<br>R1216 | 1-249-421-11<br>1-249-413-11 |                 | 2.2K 5%<br>470 5%  | 1/4W<br>1/4W |             |
| R822          | 1-215-868-00                 |             | 680              | 5%       | 1W           | 7      | R1217          | 1-249-425-11                 |                 | 4.7K 5%            | 1/4W         |             |
| R824          | 1-249-420-11                 |             | 1.8K             |          | 1/4W         | -      |                |                              |                 |                    | -,           |             |
| R826          | 1-247-752-11                 | CARRON      | 1K               | 5%       | 1/2W         |        |                | < REL                        | AY >            |                    |              |             |
| R827          | 1-249-425-11                 |             | 4.7K             |          | 1/4W         |        | RY600 A        | 1-755-018-11                 | RELAY           |                    |              |             |
| R828          | 1-247-863-91                 | CARBON      | 22K              | 5%       | 1/4W         |        |                |                              |                 |                    |              |             |
| R829<br>R830  | 1-249-493-11<br>1-217-778-11 |             | 56K<br>1K        | 5%<br>5% | 1/2W<br>1W   | F      |                | < SWI                        | TCH >           |                    |              |             |
| 2000          | 1 11, ,,,, 11                | 1001011     |                  | 50       | -11          | •      | S601 A         | 1-571-433-21                 | SWITCH, PUSE    | (AC POWER)         |              |             |
| R832          | 1-215-877-11                 |             | 22K              | 5%       | 1W           | F      | 8900           | 1-692-979-11                 |                 |                    |              |             |
| R833          | 1-249-441-11                 |             | 100K             |          | 1/4W         | _      | 8901           | 1-692-979-11                 |                 |                    |              |             |
| R835<br>R836  | 1-216-471-11<br>1-249-439-11 |             | 27<br>68K        | 5%<br>5% | 3W<br>1/4W   | F      | S902           | 1-692-979-11                 | SWITCH, TACT    | TIR                |              |             |
| R837          | 1-249-427-11                 |             | 6.8K             |          | 1/4W         |        |                | < SPA                        | RK GAP >        |                    |              |             |
| R840          | 1-247-815-91                 | CARBON      | 220              | 5%       | 1/4W         |        | SG801          | 1-519-422-11                 | GAP, SPARK      |                    |              |             |
| R841          | 1-249-418-11                 |             | 1.2K             |          | 1/4W         |        |                |                              |                 |                    |              |             |
| R842<br>R843  | 1-249-441-11<br>1-247-891-00 |             | 100K<br>330K     |          | 1/4W<br>1/4W |        |                | < TRA                        | NSFORMER >      |                    |              |             |
| R846          | 1-247-893-11                 |             | 390K             |          | 1/4W         |        |                | 1-421-776-21                 |                 |                    |              |             |
| R847          | 1-247-897-11                 | CYDBOR      | 560K             | 59       | 1/4W         |        | LF601 🛕        | 1-421-776-21                 | LFT             |                    |              |             |
| R848          | 1-249-863-91                 |             | 22K              | 5%       | 1/4W         |        | T601 /         | 1-429-604-11                 | SRT             |                    |              |             |
| R849          | 1-249-429-11                 |             | 10K              | 5%       | 1/4W         |        | T800           | 1-426-981-11                 |                 | FERRITE (PM        | T)           |             |
| R850          | 1-249-425-11                 |             | 4.7K             | 5%       | 1/4W         |        |                | 1-453-169-11                 |                 | ASSY, FLYBAC       | K (UX-1      | L604A2)     |
| R851          | 1-215-898-11                 |             | 10K              | 5%       | 2₩           | F      | T804           | 1-437-090-31                 |                 |                    |              |             |
| R852<br>R870  | 1-249-432-11<br>1-216-349-00 |             | 18K<br>1         | 5%<br>5% | 1/4W<br>1W   | 7      |                | < THE                        | RMISTOR >       |                    |              |             |
| R900          | 1-247-815-91                 | CARBON      | 220              | 5%       | 1/4W         | _      | THP600 🕸       | 1-809-827-11                 | THERMISTOR,     | POSITIVE           |              |             |
| R901          | 1-247-734-11                 |             | 39               | 5%       | 1/2W         |        |                | **********                   |                 |                    |              |             |
| R902          | 1-247-734-11                 | CARBON      | 39               | 5%       | 1/2W         |        | ********       |                              |                 |                    | ******       |             |
| R904<br>R905  | 1-249-389-11<br>1-247-804-11 |             | 4.7              | 5%<br>5% | 1/4W         | F      |                | *A-1644-070-A                | VM BOARD, CO    |                    |              |             |
| R905<br>R906  | 1-247-804-11                 |             | 75<br>75         | 5%<br>5% | 1/4W<br>1/4W |        |                |                              |                 |                    |              |             |
| R907          | 1-247-804-11                 |             | 75               | 5%       | 1/4W         |        |                | *4-368-683-21                | SPRING, TRAN    | SISTOR             |              |             |
| R908          | 1-249-401-11                 | CARBON      | 47               | 5%       | 1/4W         |        |                | < C1D                        | ACITOR >        |                    |              |             |
| R909          | 1-249-429-11                 |             | 10K              | 5%       | 1/4W         |        | <b>4184</b>    |                              |                 | 1000               | 000          | 1.00        |
| R910<br>R911  | 1-249-422-11 1-249-426-11    |             | 2.7K<br>5.6K     |          | 1/4W<br>1/4W |        | C1701<br>C1702 | 1-126-933-11<br>1-128-551-11 |                 | 100MF              | 20%          | 16V<br>25V  |
| R911          | 1-249-429-11                 |             | 3.0K             | 5%<br>5% | 1/4W         |        | C1702<br>C1703 | 1-126-933-11                 |                 | 22MF<br>100MF      | 20%<br>20%   | 25V<br>16V  |
| R913          | 1-247-863-91                 |             | 22K              | 5%       | 1/4W         |        | C1704          | 1-107-357-11                 | FILM            | 0.47MF             | 5%           | 100V        |
| R914          | 1-249-437-11                 | CYBBOR      | 47K              | 5%       | 1/4W         |        | C1705          | 1-107-638-11                 | RLECT           | 33MF               | 20%          | 160V        |
| R914<br>R919  | 1-249-437-11                 |             | 47K              | 5%<br>5% | 1/4W         |        | C1706          | 1-104-999-11                 | FILM            | 0.1MF              | 5%           | 200V        |
| R921          | 1-249-437-11                 | CARBON      | 47K              | 5%       | 1/4W         |        | C1707          | 1-137-397-11                 | FILM            | 0.047MF            | 5%           | 100V        |
| R922          | 1-247-807-31                 |             | 100              | 5%       | 1/4W         |        | C1708          | 1-137-364-11                 |                 | 0.001MF            | 5%           | 50V         |
| R923          | 1-249-421-11                 | CARBON      | 2.2K             | 5%       | 1/4W         |        | C1709<br>C1710 | 1-137-364-11<br>1-102-074-00 | FILM<br>CERAMIC | 0.001MF<br>0.001MF | 5%<br>10%    | 50V<br>50V  |
| R924          | 1-259-884-11                 |             | 4.7M             |          | 1/4W         |        |                |                              |                 |                    | -            |             |
| R925          | 1-247-807-31                 |             | 100              | 5%       | 1/4W         |        | C1720          | 1-107-667-11                 |                 | 2.2MF              | 20%          | 160V        |
| R926<br>R1200 | 1-259-884-11<br>1-249-425-11 |             | 4.7K<br>4.7K     |          | 1/4W<br>1/4W |        | C1721<br>C1722 | 1-137-397-11<br>1-126-934-11 |                 | 0.047MF<br>220MF   | 5%<br>20%    | 100V<br>16V |
| BT7 AA        | 477-443-II                   | UNDON       | 7./A             | 90       | 7/ 24        |        | C1/44          | 1-140-334-11                 | PHPCI           | e a vale           | 444          | 101         |

| VN                      | л K  | 1 J                  |                           |              |                    |                      |  |              |                           |                |                   |
|-------------------------|--|----------------------|---------------------------|--------------|--------------------|----------------------|--|--------------|---------------------------|----------------|-------------------|
| REF.NO.                 | PART NO.                                     | DESCRIPTION          | ON                        |              | REMARK             | REF.NO.              | PART NO.                                     | DESCRIPTION  | ON                        |                | REMARK            |
| C1723<br>C1725<br>C1726 | 1-161-830-00<br>1-128-551-11<br>1-126-934-11 | ELECT                | 0.0047MF<br>22MF<br>220MF | 20%<br>20%   | 500V<br>25V<br>16V |                      | *A-1649-018-A                                | K1 BOARD, CO |                           |                |                   |
|                         | < 00%  | INECTOR >            |                           |              |                    |                      | 4-202-373-01                                 | SPRING, IC   |                           |                |                   |
|                         |  |                      |                           |              |                    |                      | < CAP  | ACITOR >     |                           |                |                   |
| CN1015<br>CN1718        | *1-568-880-51<br>1-774-418-11<br>< DIO       | CONNECTOR, E         |                           | ARD 8P       |                    | C261<br>C262<br>C263 | 1-136-173-00<br>1-136-165-00<br>1-136-173-00 | FILM         | 0.47MF<br>0.1MF<br>0.47MF | 5%<br>5%<br>5% | 50V<br>50V<br>50V |
|                         | < D10  | , שעו                |                           |              |                    | C264                 | 1-136-173-00                                 | FILM         | 0.47MF                    | 5%             | 50V<br>50V        |
| D1701<br>D1702<br>D1703 | 8-719-991-33<br>8-719-110-88<br>8-719-110-88 | DIODE RD39ES         | 3-B2                      |              |                    | C265<br>C266         | 1-137-366-11                                 |              | 0.0022MF                  | 5%<br>5%       | 50V<br>50V        |
| D1/03                   | 9-113-110-88                                 | DIODE KD33ES         | 5-B2                      |              |                    | C267                 | 1-137-366-11<br>1-136-169-00                 |              | 0.0022MF<br>0.22MF        | 5%<br>5%       | 50V<br>50V        |
|                         | < COI  | L >                  |                           |              |                    | C268                 | 1-136-169-00                                 |              | 0.22MF                    | 5%             | 50V               |
| L1701<br>L1702          | 1-408-409-00<br>1-408-403-00                 |                      | 10UH<br>3.3UH             |              |                    | C269<br>C270         | 1-101-005-00<br>1-101-005-00                 |              | 0.022MF<br>0.022MF        |                | 50V<br>50V        |
| L1703<br>L1704          | 1-408-409-00<br>1-408-418-00                 | INDUCTOR<br>INDUCTOR | 10UH<br>56UH              |              |                    | C271<br>C272         | 1-126-952-11<br>1-126-952-11                 |              | 1000MF<br>1000MF          | 20ቄ<br>20ቄ     | 35V<br>35V        |
| L1705                   | 1-408-418-00                                 |                      | 56UH                      |              |                    |                      | < CON  | NECTOR >     |                           |                |                   |
|                         | < TRA  | NSISTOR >            |                           |              |                    | CN1303               | *1-568-879-11                                | PIN. CONNECT | OR 4P                     |                |                   |
| Q1701                   | 8-729-119-78                                 |                      |                           |              |                    | CN1304               | *1-568-879-11                                | PIN, CONNECT | OR 4P                     |                |                   |
| Q1702<br>Q1703          | 8-729-119-78<br>8-729-017-05                 |                      |                           |              |                    | CN1306<br>CN1307     | 1-568-878-51<br>*1-564-511-11                |              |                           |                |                   |
| Q1704                   | 8-729-119-78                                 | TRANSISTOR 2         | SC2785-HFE                |              |                    | 33.200               |  | ·            |                           |                |                   |
| Q1706                   | 8-729-017-06                                 | TRANSISTOR 2         | SC4793                    |              |                    |                      | < DIO  | DE >         |                           |                |                   |
| Q1708<br>Q1709          | 8-729-119-78<br>8-729-119-78                 |                      |                           |              |                    | D260                 | 8-719-109-72                                 |              | IS-B2                     |                |                   |
|                         | < RES  | SISTOR >             |                           |              |                    |                      | < IC   | >            |                           |                |                   |
| R1701                   | 1-249-417-11                                 | CARRON               | 1K 5%                     | 1/4W         |                    | IC260                | 8-759-250-68                                 | IC TDA7264   |                           |                |                   |
| R1702<br>R1703          | 1-249-417-11<br>1-249-421-11                 | CARBON               | 1K 5%<br>2.2K 5%          | 1/4W<br>1/4W |                    |                      | < TRA  | NSISTOR >    |                           |                |                   |
| R1704<br>R1705          | 1-249-415-11<br>1-247-815-91                 | CARBON               | 680 5%<br>220 5%          | 1/4W<br>1/4W |                    | Q260<br>Q261         | 8-729-900-74<br>8-729-119-78                 |              |                           |                |                   |
| R1706                   | 1-247-815-91                                 |                      | 220 5%                    | 1/4W         |                    |                      | < RES  | ISTOR >      |                           |                |                   |
| R1708<br>R1712          | 1-249-412-11                                 |                      | 390 5%<br>39 5%           | 1/4W<br>1/2W |                    | R261                 | 1 240 412 11                                 | (ILDDON      | 470 5%                    | 1/4W           |                   |
| R1713                   | 1-260-311-11<br>1-249-384-11                 |                      | 1.8 5%                    | 1/4W         | F                  | R262                 | 1-249-413-11<br>1-249-421-11                 |              | 470 5%<br>2.2K 5%         | 1/4W           |                   |
| R1714                   | 1-249-414-11                                 | CARBON               | 560 5%                    | 1/4W         | F                  | R263                 | 1-249-434-11                                 |              | 27K 5%                    | 1/4W           |                   |
| R1715                   | 1-249-432-11                                 | CARBON               | 18K 5%                    | 1/4W         |                    | R264<br>R265         | 1-249-425-11<br>1-249-424-11                 |              | 4.7K 5%<br>3.9K 5%        | 1/4W<br>1/4W   |                   |
| R1716                   | 1-249-417-11                                 | CARBON               | 1K 5%<br>180 5%           | 1/4W         |                    |                      |  |              |                           | •              |                   |
| R1717<br>R1718          | 1-216-476-11<br>1-249-432-11                 |                      | 18U 5%                    | 3W<br>1/4W   | F                  | R266<br>R267         | 1-249-424-11<br>1-212-849-00                 |              | 3.9K 5%<br>4.7 5%         | 1/4W<br>1/4W   | F                 |
| R1719                   | 1-249-384-11                                 | CARBON               | 1.8 5%                    | 1/4W         | F                  | R268                 | 1-212-849-00                                 | FUSIBLE      | 4.7 5%                    | 1/4W           | F                 |
| R1720                   | 1-249-400-11                                 |                      | 39 5%                     | 1/4W         | F                  | ******               | ************                                 | *********    | ********                  | *******        | ******            |
| R1721<br>R1722          | 1-249-414-11<br>1-249-401-11                 |                      | 560 5%<br>47 5%           | 1/4W<br>1/4W |                    |                      | *A-1651-088-A                                | T BOARD, COM | IDI.ETE                   |                |                   |
| R1724                   | 1-249-400-11                                 | CARBON               | 39 5%                     | 1/4W         | _                  |                      |  | ********     |                           |                |                   |
| R1725                   | 1-216-451-11                                 | METAL OXIDE          | 120 5%                    | 2W           | P                  |                      | < CAP  | ACITOR >     |                           |                |                   |
| R1728<br>R1729          | 1-249-413-11<br>1-249-413-11                 |                      | 470 5%<br>470 5%          | 1/4W<br>1/4W |                    | C290                 | 1-101-003-00                                 | CEDANTC      | 0.0047MF                  |                | 50V               |
| R1730                   | 1-249-422-11                                 |                      | 2.7K 5%                   | 1/4W         |                    | C291                 | 1-101-005-00                                 | CERAMIC      | 0.022MF                   |                | 50V               |
| R1731                   | 1-249-411-11                                 | CARBON               | 330 5%                    | 1/4W         |                    | C293<br>C294         | 1-101-003-00<br>1-101-005-00                 |              | 0.0047MF<br>0.022MF       |                | 50V<br>50V        |
|                         |  |                      |                           |              |                    | C296                 | 1-101-003-00                                 |              | 0.0047MF                  |                | 50V<br>50V        |
|                         |  |                      |                           |              |                    | C297                 | 1-101-005-00                                 | CERAMIC      | 0.022MF                   |                | 50 <b>V</b>       |
|                         |  |                      |                           |              |                    |                      | < CON  | NECTOR >     |                           |                |                   |
|                         |  |                      |                           |              |                    | CN1204               | *1-564-519-11                                | PLUG, CONNEC | TOR 4P                    |                |                   |

Les composants identifies par une trame et une marque  $\dot{\underline{\Lambda}}$  sont critiques pour la securite. Ne les remplacer que par une plece portant le numero specifie.

The components identified by shading and marked ⚠ are critical for safety.
Replace only with the part number specified.



|                  |                              |  | ·       |         |                       |   |                                |
|------------------|------------------------------|--|---------|---------|-----------------------|---|--------------------------------|
| REF.NO.          | PART NO.                     | DESCRIPTION  | REMARK  | REF.NO. | PART NO.              | DESCRIPTION   | REMARK                         |
|                  | *1-564-519-11                | PLUG, CONNECTOR 3P<br>PLUG, CONNECTOR 4P<br>PLUG, CONNECTOR 4P |         |         |                       | ELLANEOUS   |                                |
| CN1211<br>CN1299 |                              | PLUG, CONNECTOR 4P<br>PLUG, CONNECTOR 4P                       |         |         | 1-452-032-00          | COIL, DEGAUSSING MAGNET, DISK; 10MM Ø MAGNET, ROTATABLE DISK                | . 15m a                        |
|                  | < 800                        | KET >  |         |         | 1-452-724-22          | COIL NA ROTATION (RT-1  | 65)                            |
| J291<br>J292     |                              | TERMINAL BOARD   |         | Δ       |                       | TRANSFORMER ASSY, FLYB<br>SPEAKER (5CM)                                     | ACK (UX-1604A2)                |
|                  |                              | ISTOR >  |         |         | 1-505-154-11          | SPEAKER (6.5CM)<br>SPEAKER (10CM)   |                                |
| R290             | 1-249-426-11                 |  | 5% 1/4W |         | <b>↑</b> 1-540-006-22 | CAP ASSY, HIGH-VOLTAGE<br>SWITCH, PUSE (AC POWER                            |                                |
| R291<br>R292     | 1-249-426-11<br>1-249-426-11 | CARBON 5.6K  | 5% 1/4W |         |                       | TUNER/VIF (AEP)   | 2E/28WS2K/28WS2R)              |
| ******           | ***********                  | ***************  | ******* |         |                       | TUNER/VIF (FR) (EV-28W<br>TUNER/VIF (UK) (EV-28W                            | S2B)                           |
|                  |                              |  |         |         | <b>1-751-680-11</b>   | CORD, POWER (WITH NOIS<br>2.5A/250V (KV-28WS                                | E FILTER)<br>2B/28WS2D/28WS2E) |
|                  |                              |  |         |         |                       |   | ECTOR)<br>KV-28WS2K/28WS2R)    |
|                  |                              |  |         | 4       | <b>1-776-204-11</b>   | CORD, POWER (FILTER)<br>3.0A/250V   | (KV-28WS2U)                    |
|                  |                              |  |         | 4       | <b>A 8-453-005-61</b> | DEFLECTION YOKE (Y28GI<br>NECK ASSY, PICTURE TUB<br>PICTURE TUBE (SD-284T)  | E (NA297-M6)                   |
|                  |                              |  |         | ******  | ***********           | *****************   | *******                        |
|                  |                              |  |         |         |                       | SSORIES AND PACKING MAT   |                                |
|                  |                              |  |         |         |                       | CABLE SPEAKER MANUAL, INSTRUCTION (K (FRENCE/GERM                           | V-28WS2B)<br>AN/ITALIAN/DUTCH) |
|                  |                              |  |         |         | 4-203-538-11          | MANUAL, INSTRUCTION (K  |                                |
|                  |                              |  |         |         |                       | MANUAL, INSTRUCTION (K<br>(FINNISE/DANISE/N                                 | ORWEGIAN/SWEDISE)              |
|                  |                              |  |         |         |                       | MANUAL, INSTRUCTION (K<br>(CZECE/ENGLISE/POLISE/B<br>MANUAL, INSTRUCTION (K | ULGARIAN/RUSSIAN)              |
|                  |                              |  |         |         | Z-4U3-330-01          | MARIOAL, INSIRUCTION (R   | V-28WS2U)<br>(ENGLISE)         |
|                  |                              |  |         |         |                       | CUSHION (UPPER) (ASSY)<br>CUSHION (LOWER) (ASSY)                            |                                |
|                  |                              |  |         |         | *4-050-193-01         | INDIVIDUAL CARTON<br>BAG, PROTECTION  |                                |
|                  |                              |  |         |         |                       | TE COMMANDER  |                                |

1-473-692-11 COMMANDER, STANDARD TYPE (RM-862)